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SUMMER 2016

VOLUME 74.2

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Snow flies are small, flightless crane flies with the surprising habit of walking considerable distances during winter on snow in forested areas at temperatures near the freezing point.



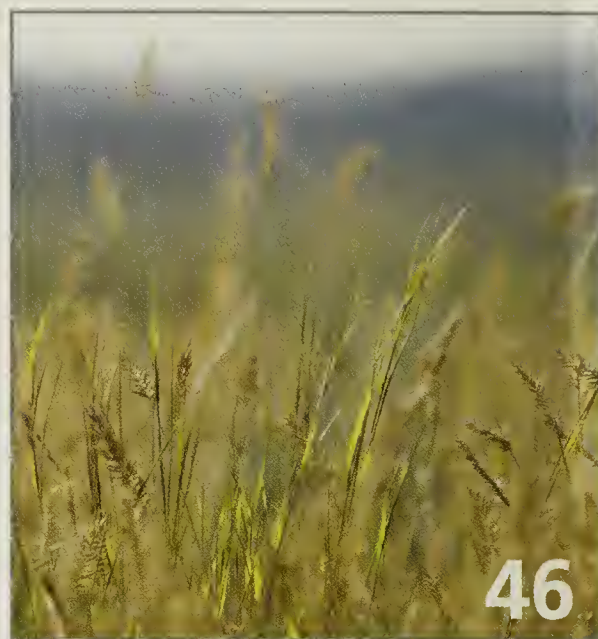
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A leucistic cackling goose was observed in Wascana Lake on March 23, 2016.



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A lightning storm on June 7, 2015 ignited wildfires that were to have serious consequences for Lac La Rongre bald eagles.



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Photo credit: Henry Nikkel

ON THE FRONT COVER

Male chestnut-collared longspur near Morden, Manitoba, June 21, 2015. A pair of Chestnut-collared longspurs nested south of Morden in 2015, well east of the main breeding area in Manitoba but within the historical range for the species.



Photo credit: Dale Mierau

ON THE BACK COVER

For years, Dale Mireau has observed breeding and non-breeding bald eagles at Lac La Ronge, Saskatchewan

FROM THE PRESIDENT

Tara Sample
President, Nature Saskatchewan

Greetings,

It is bittersweet to be writing this, as it is my last “From the President” message. When I joined the Nature Saskatchewan Board two short years ago, I had no idea of the changes that were to come in my personal life. I would he never guessed that I would now be the mother of two very active toddlers.

This spring, with my term as President coming to an end, I made the difficult decision to step away — at least for awhile — from the Board. It was not an easy decision, as Nature Saskatchewan has been dear to my heart ever since I picked up a brochure in a plant taxonomy class in 1999 and decided to become a member.

My children are busily exploring their ever-expanding world, and I want to be there while they do this. I want to help them develop their own relationships with nature.

I would like to thank the Board and the office staff for all their



support over the past two years. There have been a lot of times that I haven’t been able to meet my obligations without their extra efforts. In particular, I would like to thank Donna Bruce for her mentorship, patience, and for nudging me along when I needed it.

I also wish the new President, Branimir Gjetvaj, the new Board and our excellent staff all the best in the coming years. I know the society is in good hands.

Have an enjoyable summer. 🐦

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Blue Jay, founded in 1942 by Isabel M. Priestly, is a journal of natural history and conservation for Saskatchewan and adjacent regions. It is published quarterly by Nature Saskatchewan.

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Editorial Information

Blue Jay welcomes all submissions, preferably by e-mail (although hand-written or typed manuscripts will be considered to accommodate those who do not have access to computer equipment), polished or in need of some editorial assistance. All items for publication should be sent to the editor electronically (in a Microsoft Word document) by e-mail or on CD. Hard copies and CDs can be mailed to the editor at the address above.

Submission deadlines

January 1 for the Spring issue, April 1 for the Summer issue, July 1 for the Fall issue, and October 1 for the Winter issue. For detailed information, please see the "Guidelines for Authors" under the Publications section of the Nature Saskatchewan website.
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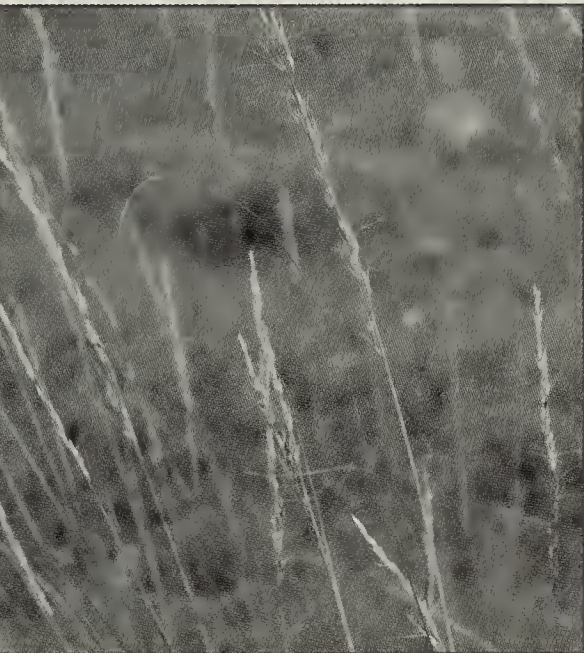
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PLANNING FOR PLANTING: SEEDING NATIVE SPECIES



Prairie grass species, such as green needle grass and northern wheatgrass, are hardy, nutrient dense and drought tolerant.
Photo credit: Tara Mulhern Davidson



Species such as purple prairie clover, a native legume, are well suited to Saskatchewan climates.
Photo credit: Tara Mulhern Davidson



Winterfat is a native prairie species that is often sought after by grazing animals because it is high in protein. Photo credit: Larry Gabruch

submitted by South of the Divide Conservation Action Program Inc.

As mild winter weather transitions into a warm spring, producers are gearing up for an early seeding season, including those who are planning to seed forages. For farmers and ranchers who are used to looking on the horizon for the next raincloud, seeded native grass species may be the ticket to long-term sustainability. Producers who are considering seeding perennial forages should investigate whether native species are a good option for their operations.

The South of the Divide Conservation Action Program Inc. (SODCAP Inc.) is a species at risk conservation organization focused on working with producers in the Milk River watershed, also known as the South of the Divide. The group is currently offering programming to assist area producers who are interested in converting cultivated land to native prairie species.

"Producers will benefit from forage stand longevity when they choose to seed natives," says Larry Gabruch, a native restoration agrologist working with SODCAP Inc. "Well-managed seeded natives hold their productivity over the long term," Gabruch explains, adding that while tame stands may require rejuvenation or inputs, native species likely will not. For ranchers or farmers interested in a long-term low-maintenance method of increasing their grazing resources, native plants are a great option.

Because they are native to the region, prairie species such as needle-and-thread, northern wheatgrass, purple prairie clover, green needle grass, blue grama, and June grass are most adaptable to local climates. "Native species are able to withstand weather extremes, particularly drought," says Gabruch, adding that a well-planned native seeding project will adapt to changing weather conditions and patterns.

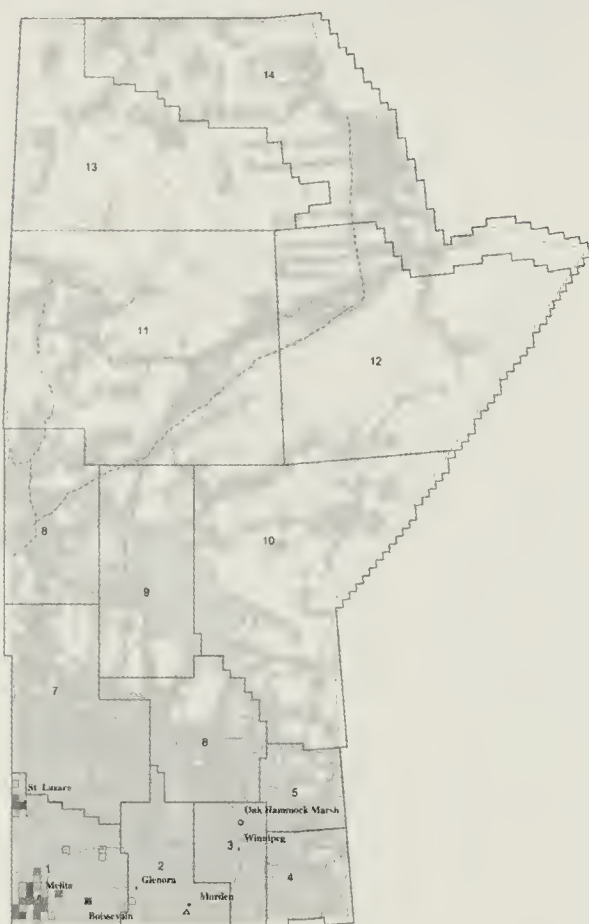
Gabruch acknowledges that there are some misconceptions about natives, including the notion that native stands are far less productive than tame stands. "A lot of producers rely on tame grass in the southwest, and they work in many circumstances. However, a well-designed native planting including native legumes can rival performance compared to seeded tame forages. Over the long term, natives will withstand drought conditions and maintain longevity better than tame species, which is where the main differences and advantage comes in," Gabruch explains.

The benefits of seeded native species don't stop at producers. An established diverse mix will contribute to the overall biodiversity in an area. This diversity helps to provide quality habitat for species at risk as well as a source of food and an area for species to forage in. Species at risk, such as the burrowing owl, Sprague's pipit and chestnut collared longspur, all require prairie grassland habitat to complete their life cycles. Native plantings can help connect fragments of habitat, fill in holes, and benefit the overall ecosystem, in addition to increasing grazing capacity on a farm or ranch.

When it comes to seeding native species, planning is key. Gabruch advises producers to implement a strong pre-seeding weed control plan and to plant shortly after a pre-seeding herbicide application to give the native seedlings a competitive advantage over weeds. Timing is critical, suggests Gabruch, who says preventative weed control will save time and effort in the future. "Use high quality, weed-free seed that is well-suited to the area it will be planted in," he adds, saying that a seed analysis showing purity and germination will help determine the proper seeding rate.

For more information on SODCAP Inc.'s seeded native program, which includes financial incentives and technical advice, contact agrologist Larry Gabruch at 306-716-9603. 🐦

CHESTNUT-COLLARED LONGSPURS NEST NEAR MORDEN, MANITOBA



Chestnut-collared Longspur
Bruant à ventre noir
Calcarius ornatus

Breeding Evidence Nidification

- Possible
- Probable
- Confirmed / Confirmée
- Not Surveyed / Pas recensé
- Not Observed / Pas observé

Updated / Mise à jour 30-SEP-2015



Figure 1. Breeding evidence map of the chestnut-collared longspur during the Manitoba Breeding Bird Atlas (2010-2014).⁸ The triangle marks the 2015 nesting location near Morden, Manitoba.

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The chestnut-collared longspur (*Calcarius ornatus*) breeds in North America's Northern Great Plains.¹ In Canada, this iconic grassland species is found in mixed-grass and short-grass prairies and plains from Manitoba to Alberta.^{2,3} The chestnut-collared longspur reaches the northeastern edge of its North American distribution in Manitoba where in the late 1800s it was considered to be common in suitable habitat.⁴ Although it nested as far north and east as Winnipeg, East Shoal Lake and the Oak Hammock Marsh area until at least the mid-1990s, the chestnut-collared longspur's breeding range in Manitoba is now limited to the southwest corner of the province where it is considered to be locally fairly common (R. Koes, pers. comm.).^{5,6,7}

Participants of the Manitoba Breeding Bird Atlas (MBBA) project (2010-2014) verified the provincial breeding range of the chestnut-collared longspur, confirming that the longspur's breeding range is indeed restricted to southwestern Manitoba, primarily near Melita and St. Lazare (Fig. 1).⁸ In this note, we document the nesting of chestnut-collared longspurs outside of their *current* breeding range in Manitoba but within their historical breeding range.

On June 20, 2015, the authors encountered two chestnut-collared longspurs in a pasture (~ 9 ha), 6.4 km south-southwest of Morden. The pasture (Fig. 2) contained a

relatively large lowland area that could seasonally retain water. J.P. Goossen and V. Goossen visited the pasture later that day and confirmed the presence of two males and one female. On June 21, 2015, H. Nikkel returned to the pasture and observed a male and female chestnut-collared longspur in the same area and suspected there might be a nest as the female was observed flying over and then dropping into the grass and remaining there for about 10 to 15 minutes. One or both members of the pair were again observed by H. Nikkel on June 25, 28 and 29. On July 4, J.P. Goossen visited the pasture and observed a female and male, both with food in their beaks, dropping into the grass at different times, a short distance from the fence line. A second pair was seen 90 m east of the first pair also flying down into the grass just north of the fence line. Nesting was not observed.

On July 7, H. Nikkel located and photographed the nest of the first pair in a tuft of grass about 7 m from the pasture fence and about 14 m from the road. He did not approach the nest too closely to check its contents; however, four nestlings were seen in one of the photographs (Fig. 3) he took during the visit. We assume the nest contained longspur chicks but we can not rule out the possibility that the nest may have had at least one brown-headed cowbird (*Molothrus ater*) chick. During this visit, both male (Fig. 4) and female were again observed carrying food; the female was observed with food at the nest. H. Nikkel observed the male on July 12 and both adults on July 17. J.P. Goossen visited the pasture on July 24 but did not locate any longspurs.

The chestnut-collared longspur nest was located in the Rural



Figure 2. Chestnut-collared longspur habitat near Morden, Manitoba. Photo credit: Paul Goossen

Municipality of Stanley (RMS) in south-central Manitoba about 110 km southwest of Winnipeg. During the recent MBBA, the closest sighting of a chestnut-collared longspur to the Morden site was about 80 km west-northwest near Glenora, and the nearest confirmed breeding location was about 140 km west, near Boissevain.⁸ The primary current breeding range of the longspur in Manitoba is about 215 km west of the Morden site. Although chestnut-collared longspurs are widespread in neighbouring North Dakota, their presence in that state's Northeastern Drift Plain, southwest of Morden, is considered to be uncommon.⁹ The closest North Dakota breeding location to the nest reported in this note was in Towner County, about 85 km to the southwest.⁹ Chestnut-collared longspurs are also known to have nested as far east as western Minnesota.¹⁰

Chestnut-collared longspurs have previously been recorded in the RMS. On April 26, 1981, J.P. Goossen observed a male singing and giving a flight display 13 km southeast of Morden in about 16 ha of grassland habitat. On June 15, 1986, J.P. Goossen observed a chestnut-collared longspur about 2 km west of Morden in grassland habitat. He recorded it as "probable" as he did not have binoculars to confirm the

sighting, but given it was a sparrow-sized bird with extensive white on its tail and a reddish-brown neck, it no doubt was that species. On June 12, 1990, he observed a male and female chestnut-collared longspur in the same grassland (old pasture) as the bird seen in 1986. He also observed a male carrying out an aerial flight song over a pasture on June 13, 1990, about 3 km southwest of Morden. Other observers have noted this species in the RMS as well. From 1989 through 1994, chestnut-collared longspurs were observed each April in pastures about 6 km south-southwest of Morden. Numbers ranged from two to six individuals (R. Koes, pers. comm.). To our knowledge, the observations in this note of chestnut-collared longspurs in the RMS are the first since 1994.

The chestnut-collared longspur is considered to be a rare visitor or migrant outside of its core breeding range in southwestern Manitoba.⁷ The nesting of chestnut-collared longspurs near Morden, however, extends its current known breeding range into south-central Manitoba. Historically south-central Manitoba no doubt was part of the longspur's regular breeding range. Prior to settlement, native grassland was extensive in southern Manitoba. The grazing of bison (*Bison bison*) and effects of prairie fires would have modified

the height of grasslands and thereby provided suitable nesting habitat for chestnut-collared longspurs.¹¹ In 1806, Alexander Henry, while viewing the Red River plains from the Pembina Escarpment near the current town of Morden, recalled that he had "many times beheld these plains covered with buffalo at all seasons of the year".¹² In time the bison disappeared from southern Manitoba and settlers arrived, many of whom would have grazed their cattle and horses on the native grasslands, also creating habitat suitable for chestnut-collared longspurs.

Grasslands in the Northern Great Plains have declined significantly with the advance of settlement and agriculture.^{9,13} Loss of chestnut-collared longspur breeding habitat has also been noted in Manitoba.^{6,14} Breeding Bird Survey data show that the chestnut-collared longspur population is in a long-term decline within its North American range, as well as in Manitoba.¹⁵ The primary factors affecting its population decline appear to be fragmentation and loss of habitat.³ Both population decline and habitat loss contributed to the decision to list the species as Threatened in Canada.^{3,16} In Manitoba, the chestnut-collared longspur is listed as Endangered.¹⁷

Grassland pasture is under continued threat in south-central



Figure 3. Chestnut-collared longspur nest with young near Morden, Manitoba. Photo credit: Henry Nikkel

Manitoba. The initial breaking of native grasslands in southern Manitoba in the 1800s and continued expansion of agriculture has resulted in significant loss of Manitoba's tall and mixed-grass prairies.¹³ Urbanization, acreage development and resource extraction are all factors that threaten grassland habitats in the RMS. Grassland pastures, though not extensive in the RMS, are the most likely habitat that could support breeding pairs of chestnut-collared longspurs. Grazing is critical to creating suitable nesting habitat for longspurs in Manitoba as this province's higher annual precipitation promotes greater grass growth than experienced in arid regions of Saskatchewan and Alberta.¹⁸ Conserving and maintaining grassland habitats in the RMS is important not only for species at risk like the chestnut-collared longspur, but also for other obligate grassland species.

Acknowledgements

We thank C. Artuso, V. Goossen and R. Koes for their comments on the manuscript. We also thank K. Ellison, D. Hill and S.G. Sealy for their assessment on the identity of the photographed nestlings.

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Figure 4. Adult male chestnut-collared longspur with food near Morden, Manitoba. Photo credit: Henry Nikkel



Stewards of Saskatchewan staff present Friends of the St. Victor Petroglyphs their personalized gate sign. From left to right: Ashley Fortney, Kevin Schauenberg, Wes Bloom, David Munro, Ernest Bissonnette, and Kaytlyn Burrows. Photo credit: Rebecca Magnus

FRIENDS OF THE ST. VICTOR PETROGLYPHS HELP SAVE MONARCH BUTTERFLIES

Ashley Fortney Habitat Stewardship Coordinator, Nature Saskatchewan

This past Earth Day, Stewards of Saskatchewan staff were glad to have the opportunity to get out of the office for a short trip to St. Victor, Saskatchewan. We met with new Stewards of Saskatchewan participants — the Friends of the St. Victor Petroglyphs. In attendance were members Wes Bloom, Kevin Schauenberg, Earnest and Yolanda Bissonnette, as well as the president, David Munro. The Friends recently joined Nature Saskatchewan's Stewards of Saskatchewan banner program, which works with interested landowners and land managers to conserve and enhance

habitat for species at risk on the prairies — and the Friends fit right in!

The Friends of the St. Victor Petroglyphs is a non-profit cooperative group whose main goal is to preserve, protect and promote the St. Victor Petroglyphs. They are also working hard to raise awareness around the importance of the diversity of species in the area and the need to conserve the habitat within the valley. The area is quite unique with coulees up to 300 feet deep, large swaths of undisturbed native vegetation full of spring beds, and an elevation that rises from 2,200 feet to nearly 3,000 feet in approximately 2 miles. The area contains rare and beautiful

vegetation, including flowers such as White Paint Brush, Camus, Blazing Star, and even a tiny fern.

The Friends endorse St. Victor Petroglyph Provincial Park, and locally run Sylvan Valley Regional Park, as an ideal place for the introduction of nature hikes and tours within the deep coulees of the Wood Mountain Plateau. They also suggest this area could be used for people who want to study and record butterflies. They have a soft spot for one butterfly in particular — the Friends are participating in the protection and monitoring of monarchs. David told us, historically, the interpretative centre honours the Plains Grizzly as the "monarch of the prairies," and joked that the Friends have honoured such a large monarch for so long, they felt it was time to honour a small monarch as well! In case anyone is wondering, he immediately apologized for the pun.

Recent growing attention on monarch butterflies has shed light on the potentially grim future for the species, spurring many organizations to take action. The Friends believe





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Monarch butterfly. Photo credit: May Haga

that it is time to take action as well. They have observed monarchs on milkweed near the interpretive centre every year and want to help increase their population. They are starting a project to create a butterfly garden to help save the monarch and other insect species that aid in pollination of plants and crops in the surrounding area. By the time this article is published, the Friends will have already held a volunteer event to hand pull brome and weeds from an area adjacent to the interpretive centre. This is the first step toward their plans for a self-guided path where people can interact with the butterflies and flowers.

The area for the butterfly garden is approximately 1,200 square feet. The Friends have not only planned

to hand pull a clearing, but they also intend to re-use the pulled vegetation for compost, to culture existing native flowers in the seed bed, and to collect native seeds from the surrounding area to plant. They will also be using seeds provided by Nature Saskatchewan. Rebecca Magnus, acting Species At Risk manager, has been in conversation with Blazing Star Wildflower Seed Company to create a butterfly seed mix that caters to monarchs by including milkweed, the monarch's natural host.

We were glad to be there to see David and Kevin hang the personalized Stewards of Saskatchewan gate sign right next to the butterfly garden area. We were also excited to have the

opportunity to discuss the Stewards of Saskatchewan program in detail and provide the Friends with some educational materials for distribution to visitors of the site. And (of course!) we weren't going to miss an opportunity for a guided tour of the petroglyphs by members of the group dedicated to their protection.

For more information about the Friends of the St. Victor Petroglyphs, please visit: <http://stvictor.sasktelwebsite.net/>. For more information about Nature Saskatchewan and the Stewards of Saskatchewan Banner program, please visit: www.naturesask.ca/what-we-do/stewards-of-saskatchewan/stewards-of-saskatchewan-banner-program, or call 1-800-667-HOOT (4668). 🐦

OBSERVATION OF ABUNDANT NORTHERN LEOPARD FROGS AT WARGATIE LAKE, MANITOBA

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Conservation Status & Local Abundance

The northern leopard frog (*Lithobates pipiens*) is a Species of Special Concern in the prairie provinces.¹ These frogs require three habitat types to complete their life cycle: terrestrial (uplands and native prairie) for summer foraging, wetlands for reproduction, and permanent water bodies that do not freeze solid for overwintering.¹⁻³ Connectivity and close proximity among those habitats is especially important, due to the frogs' limited dispersal distance.²

The species was once common enough to be commercially harvested.^{1,4} Northern leopard frogs were particularly abundant in the southern marshes of Lake Winnipeg and Lake Manitoba, and were noted as being the most abundant frog in the Delta Marsh region in 1961.^{2,5} In the 1970s, however, the species started dying off from an apparent illness; large numbers of dead frogs were observed, and they seemed to disappear from major population centres.^{1,4,6} The species started to recover in the 1990s, with local populations having recovered significantly since then.¹ Northern leopard frogs are currently considered "apparently secure" in Manitoba.³

Few quantified reports of leopard frog abundance in Manitoba are available.^{1,2} Reports from some observers suggest that they can be locally abundant. Manitoba Herps

Atlas observers have reported densities of frogs as high as 100 individuals per 100 m².^{6,7} Several (up to five to 10 in places) northern leopard frogs per metre of shoreline (considered "immense numbers") were reported at the Pinawa sewage lagoons in July 1990, which were similar to observations at a Weyburn, Saskatchewan golf course in July 2003.⁷⁻⁹

Study Area & Methods

Surveys occurred on a 65 ha parcel that is a component of the Nature Conservancy of Canada's Riding Mountain House conservation project near Keeseekoowenin, south of Riding Mountain National Park, Manitoba (Fig. 1). The property is characterized by Loamy lacustrine and Loamy till (well drained, slope 5-9%, agricultural capability 3-4) soils and supports several pothole wetlands interspersed with annual cropland (wheat was grown in



Photo credit: Annie McLe

the season prior to surveys).¹⁰ The property lies adjacent to perennial grass pasture, hayland, wetlands, and Wargatie Lake. Annual cropland occurs within 800 m of the property and is characteristic of regional land use. Wargatie Lake is 160 ha large and 12 m deep.¹¹

While conducting vegetation surveys on September 8, 2011, Nature Conservancy of Canada staff (Cary Hamel, Julie Pelc, and Levi Newediuk) noted what appeared to be an exceptional abundance of presumed young-of-the-year northern leopard frogs. After investigating several portions of the property, the surveyors determined that abundance appeared to be generally ubiquitous. In an attempt to quantify abundance

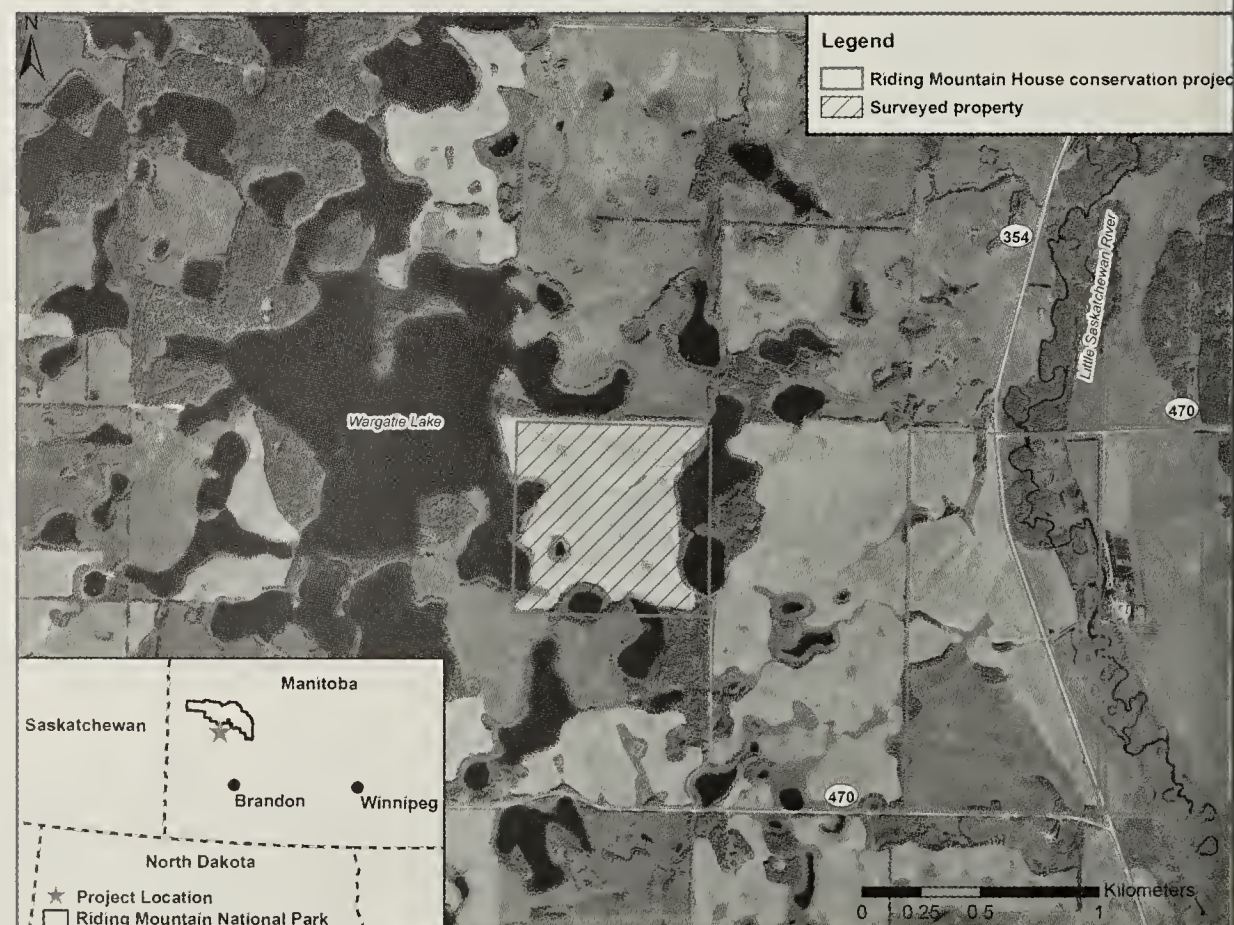


Figure 1: Map of the survey area, part of the Nature Conservancy of Canada's Riding Mountain House conservation project near Keeseekoowenin, south of Riding Mountain National Park, Manitob

six transects were established through upland areas of the property, running roughly perpendicular to Wargatie Lake. Surveyors attempted to make transects as straight as possible and roughly 100 m in length; however, actual transect length varied from 111 to 145 m. The beginning and end of each transect was noted using a GPS. The flushing distance of frogs was determined to be approximately 1 m. Surveyors noted the number of frogs observed while walking transects. Weather conditions were sunny and approximately 21 degrees Celsius.

Results

Four hundred and forty-two frogs were observed along 780 m travelled (Table 1). Based on a 1 m flushing distance, transects were considered to be 2 m wide belts. The average density of surveyed frogs was 0.29 frogs/m², or 2,900 frogs per ha.

Discussion

While our sample size was very small, the limited number of reported estimates of northern leopard frog abundance in Manitoba makes these observations noteworthy. Our observations appear similar to the ‘immense’ numbers reported by Taylor and references therein).⁸ The authors recognize that survivorship between life stages varies (see Kinney 2011 for review) and it is unknown how many frogs survived to overwinter.¹² Frog abundance was notably higher at the survey location earlier in the season (Levi Newediuk, pers. comm.).

Pope et al. (2000) summarize the landscape scale considerations required to support a metapopulation of northern leopard frogs, and their results suggest that full landscape structure, including breeding habitat as well as complementary habitat, is linked to frog abundance.¹³ The adjacency of relatively deep Wargatie Lake as overwintering habitat may contribute to the observed abundances.

Table 1. Northern leopard frogs observed along six transects at the Nature Conservancy of Canada’s Riding Mountain House conservation project in September 2011.

TRANSECT	TRANSECT LENGTH (M)	# NORTHERN LEOPARD FROGS OBSERVED	# NORTHERN LEOPARD FROGS/M ²
1	111	85	0.383
2	119	89	0.374
3	145	71	0.245
4	130	69	0.265
5	145	45	0.155
6	130	83	0.319

Post survey (October 2011), portions of the annual cropland on the surveyed property were restored. Ten pothole wetlands ranging in size from 0.09 to 1.10 ha in size and encompassing 3.8 ha in total were recreated. A post-restoration examination of northern leopard frog abundance represents an interesting research opportunity.

Acknowledgements

Julie Pelc and Levi Newediuk provided field assistance. Jean Rosset and Jordan Becker provided site information. Funding for NCC’s conservation work at Wargatie Lake was supported by the Government of Canada’s Natural Areas Conservation Program, the U.S. Fish and Wildlife Service, and the Province of Manitoba.

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CENTENNIAL CELEBRATION OF BIRD MIGRATION

Becky Quist, Office Coordinator,
Nature Saskatchewan

Lacey Weekes, Conservation &
Education Manager, Nature Saskatchewan

"If you know to put your ears up and listen, you'll hear birds, and life is changed forever... they're all up there in the air, migrating while we sleep, on the high highways of wind."

— Jeff Wells

An early Saturday morning in May — with the wind low, the sun high and the birds singing overhead — stood to be a great day to celebrate the return of several of our feathered friends from their long voyages, and take the opportunity to educate others on migration and bird life.

International Migratory Bird Day is an annual event held by Nature Saskatchewan at Last Mountain Bird Observatory in Last Mountain Regional Park. This year's event, held on May 14, marked 100 years since the enactment of the Migratory Bird Convention ["An Act to implement a Convention for the protection of migratory birds in Canada and the United States." (S.C. 1994, c. 22)]

A local Regina Lutheran Church group of approximately 20 people entered the park in the early



More than 120 people from the Regina Open Door Society attended the event.

morning, followed by a group of more than 120 from the Regina Open Door Society (a non-profit organization that provides settlement and integration services to refugees and immigrants in Regina).

All children who attended the event received a nature journal and pencil to record their bird sightings, draw pictures and write poems about their observations. Throughout the day, they could be seen kneeling in the grass, gathering around picnic tables and enlisting the help of their friends to write in their journals. What better way to learn than in nature?

Noticeably happy individuals took enjoyment in the green, surrounding landscape on Bird Day — not only was it an informative experience,

but a refreshing one for many of the visitors.

An Open Door Society coordinator informed staff that there was so much eagerness to come to the event. As the morning of the event drew closer, more people had registered to attend than were allowed on the busses, and the coordinator went on to say "people were obviously very excited to have the opportunity to come today."

She added, "This is the first time many in this group have been able to explore outside the city since their arrival to Canada."



One of the groups birding at the lake.



Lacey Weekes welcoming groups.

After a brief welcome, groups spent the remainder of the morning rotating through five different learning stations:

Station # 1 - Mist Nets

Participants witnessed banders extracting song birds from mist nets located around the regional park.



Station #2 - Bird Banding

Collected birds were then taken to the banding station where data (species, age, sex and weight) could be recorded before they were tagged with uniquely numbered bands and released back into the wild.



Station #3 - Shorebird Adaptations

Have you ever thought of being a bird? We transformed willing members into a shorebirds. These "birds" then helped others learn about adaptations each shorebird has to survive in the wild.



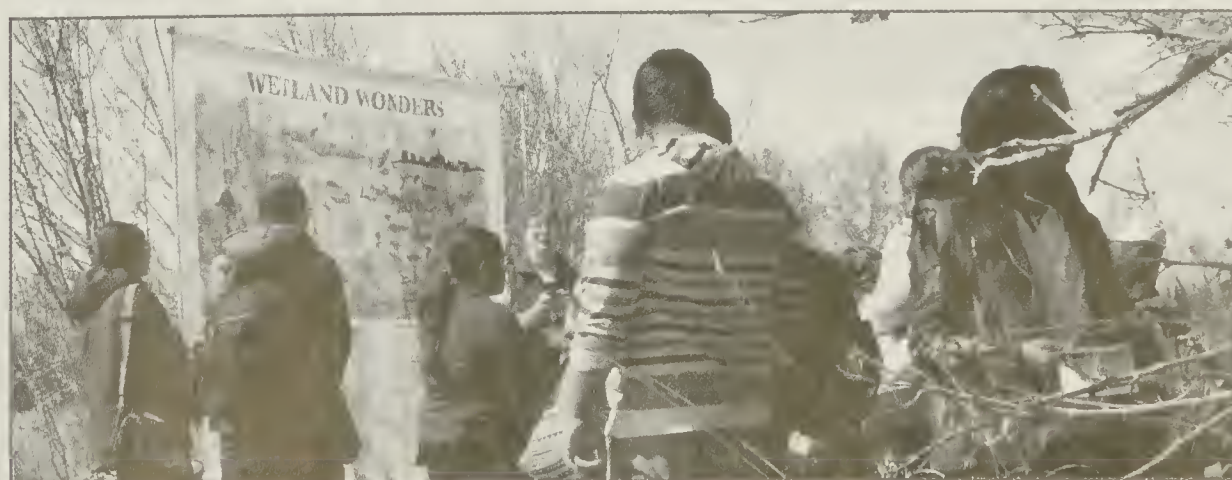
Station #4 - Migration Obstacle Course

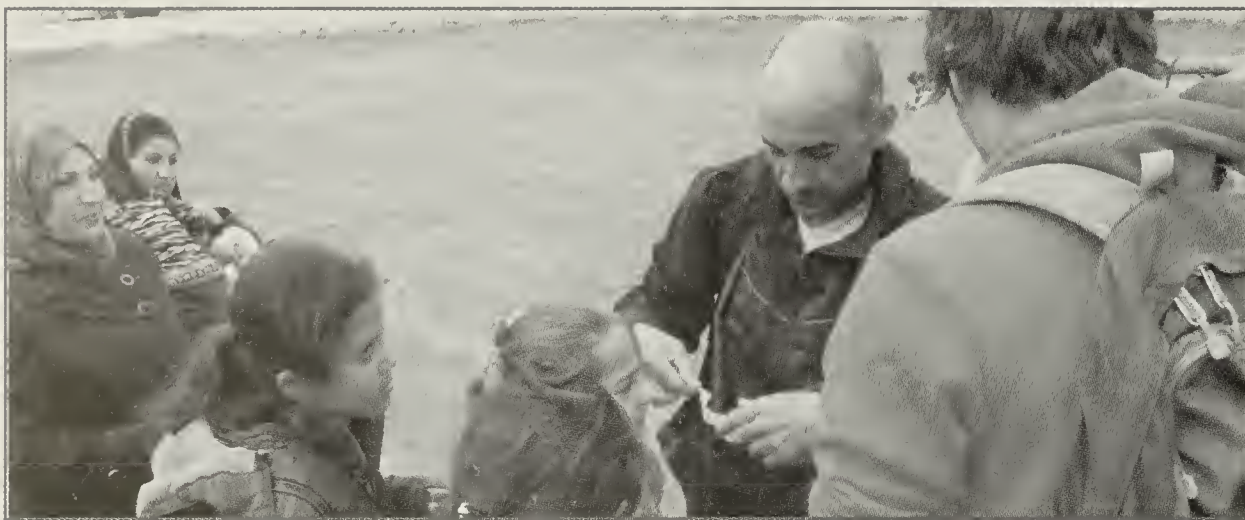
Participants had to make their way through the course as a migratory bird, dodging the many threats along the way such as cats, powerlines, windows, and storms. The migration obstacle course revealed the many threats birds encounter during their long migrations.



Station #5 - Wetland Metaphor Display

Wetlands are important ecosystems for migratory birds. Participants learned about the many functions of a wetland and the species that live in them.





A geocaching group with their find.

The afternoon event — geocaching — turned out to be a lively adventure for most participants, especially the children, with one child inquiring when he would be able to go again because he had so much fun.

Nearing the end of day, many were seen lounging in the grass near the beach and asking questions about different birds and animals in the area. A young teenager catching up with the group ahead of him exclaimed "I'm just going to stay here tonight because I love it."

Becky Quist, office coordinator for Nature Saskatchewan commented on her first time to Bird Day. "The opportunity to celebrate our human cultural diversity while taking joy in the beauty of bio-diversity together, so close to home, has been extremely fulfilling. We couldn't have asked for better weather or more enthusiastic visitors from either group that joined us. I can't wait to do this again! This is what Nature Saskatchewan is all about."

Bird Day is an annual event and is not possible without the help of several volunteers and dedicated

staff, as well as the sponsors who help in the funding and planning. Nature Saskatchewan extends thanks to the 2016 volunteers: Tisha Mattila, Mackenzie Metz, Donna Bruce, Al Smith, Ross Dickson, Shelley Fisher, Jamie Harder, Brenda Kramarchuk, Marla Anderson, Kris Mutafov and Shayna Hamilton. Nature Sask also extends special thanks to the funders and sponsors: Nature Canada, Wildlife Habitat Canada and SaskEnergy. 🐦



Children recording in their nature journals.

WANTED



Burrowing Owl



Piping Plover



Loggerhead Shrike



Sprague's Pipit

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2015-16 ANNUAL WINTER BIRDING CONTEST RESULTS

Boyd Metzler
Whitewood, SK

The 28th Annual Winter Birding Contest commenced on December 1, 2015 and concluded on February 29, 2016. This year there were four entries — Ryan Dudragne of Regina recorded 100 species, Boyd Metzler of Whitewood found 44 species, Orval Beland of Denholm saw 35 species, and young Jaxon Finkas spotted 34 species.

Ryan's total surpassed our all-time record of 87 species, set by Paul Chytky, in 1994-95. Ryan noted that with an incredibly mild winter, birding was fantastic.

Several uncommon wintering birds were around and a few provincial rarities — such as a king eider, pine warbler, Pacific wren, scarlet tanager, and eastern towhee made it more exciting. Some uncommon birds Ryan recorded were the greater scaup, long-tailed duck, cackling goose, harlequin duck, Townsend's



King Eider near Fort Qu'Appelle. Photo Credit: Annie McLeod

solitaire, and varied thrush. Ten Christmas Bird Counts (CBCs), trips to Gardiner Dam and the north, and word of mouth from friends allowed Ryan to reach his personal best. Unfortunately, he did miss the ruffed grouse and northern flicker.

I just toured the local area again this year, but did manage to do four

CBCs. It seems harder and harder to find birds in the countryside as more land is being cleared and drained. This past season I had the pleasure of having my grandson, Jaxon, with me on most of my birding trips. He has much sharper eyes than my old ones. We did happen to see many ruffed grouse — a change over previous years. Our lists are about local misses — there were American robins, a fox sparrow, pine siskins, snowy owls, and a brown creeper in town, but we missed them all. I was glad to see that Ryan saw Harris's sparrows and rusty blackbirds — species we haven't seen in a few years.

Orval spotted the only northern saw-whet owls and northern flicker. He also spotted the Cooper's hawk and ruffed grouse. Most of Orval's observations were made near home in Denholm — it seems like a very interesting birding area.

A special thank you to everyone who is willing to share their winter bird lists. 🐦



Harlequin Duck in Saskatoon. Photo Credit: Nick Saunders

SNOW FLIES AND OTHER WINTER INVERTEBRATES NEAR PINAWA, MANITOBA

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Snow flies (Diptera: Tipulidae: *Chionea*) are small, flightless crane flies with the surprising habit of walking considerable distances (tens of metres, possibly farther) during winter on snow in forested areas at temperatures near the freezing point (Figs. 1 to 3).¹⁻³ Having seen them a few times near Pinawa, Manitoba, I conducted surveys between 2009 and 2015 to define their seasonal occurrence and estimate their density on the snow surface, while also noting any other invertebrate activity.

All the snow flies observed were assumed to be *C. valga*, the widest-ranging North American *Chionea* species, which occurs from Alberta to Labrador and southward to Minnesota and Virginia.^{1,3} Individuals were not examined microscopically, but some photographs show just enough detail to support this

identification (Figs. 1 to 3).^{2,4} Byers' distribution map for *C. valga* includes two Alberta and three Manitoba localities, but none in Saskatchewan.¹ It is reasonable to expect this species to occur across the boreal forest in the three Prairie provinces. One of the reported Manitoba localities is Red Rock Lake, 30 km southeast of Pinawa.¹ There is also one recent report of an eastern species, *C. scita*, in Manitoba.⁵

The sex of individual snow flies is easily determined by the shape of the abdominal appendages: upward-curving and finely tapered in females (Fig. 2), blunt and pincer-like in males (Fig. 3).^{1,4} Specimens of *C. valga* vary considerably in size: Byers gives body-length ranges (excluding antennae) of 3.5 to 6.0 mm for males and 4 to 8 mm for females.¹ In a normal walking posture, the span of the legs is three or four times the body length (Figs. 2 and 3). Large males have robust proportions

(especially the legs), while small males are relatively slender.¹

Study Area and Survey Procedure

The 1.5-km survey route, centred just north of Pinawa at 50.166°N, 95.864°W, follows a lightly used, single-track snowmobile trail in second-growth, mixed-wood forest (Fig. 4), primarily trembling aspen (*Populus tremuloides*) and balsam fir (*Abies balsamea*) with some white birch (*Betula papyrifera*), balsam poplar (*Populus balsamifera*) and white spruce (*Picea glauca*). Slightly lower-lying areas have black spruce (*Picea mariana*), tamarack (*Larix laricina*), black ash (*Fraxinus nigra*), and some treeless marsh, while bur



Figure 2. *Chionea valga* female walking near Pinawa, January 27, 2015, viewed from the side, showing the finely tapered tip of the abdomen.

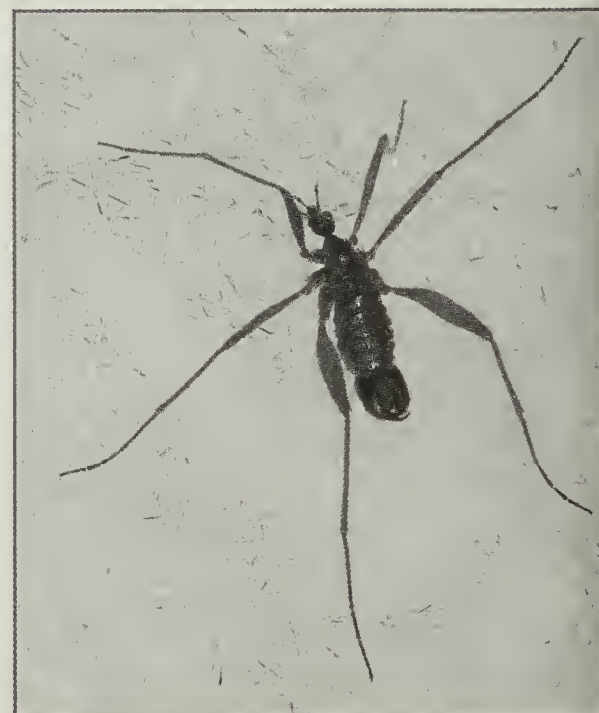


Figure 3. *Chionea valga* male near Pinawa, January 16, 2010, viewed from above, showing the pincer-like abdominal appendages.



Figure 1. Standing in the snow near Pinawa, January 27, 2015, this female *Chionea valga* suggests an alien machine from *War of the Worlds*.



Figure 4. Mixed-wood forest habitat for snow flies near Pinawa.

oak (*Quercus macrocarpa*) and jack pine (*Pinus banksiana*) are present in slightly elevated, rocky areas. The area has not been disturbed by major fires or logging for at least 60 years. Forest succession has proceeded to the point that many fir trees have reached the height of the aspen canopy (about 15 m).

The route was surveyed by walking slowly in both directions and visually scanning the snow surface for invertebrates over an average width of about 3 m centred on the trail. Counting the outward and return journeys separately (given the mobility of *C. valga*; see Discussion below), the area surveyed was equivalent to 9,000 m² (0.9 ha) per round trip.

Extreme survey dates were November 23 (2014) and April 3 (2014). The number of surveys varied from year to year, with more than half in the 2014-2015 winter, but overall monthly coverage from December to March was fairly uniform (Table 1). Surveys were usually conducted in the afternoon (average start and finish

times, 14:43 h and 16:07 h Central Standard Time), and the average round-trip duration was 1.4 hours. Weather conditions were usually overcast with light wind and no precipitation. Other reports indicate that the combination of timing and conditions was appropriate for finding snow flies.^{1-4,6,7} Detection of small invertebrates was impeded to varying degrees by fir needles and fine detritus on the snow surface. Overall, this probably did not affect detection of snow flies very much, but was more problematic with smaller, less mobile species such as snow fleas and rove beetles (see below).

The maximum temperatures on survey days, and minimum temperatures the previous night, as recorded at a weather station 14 km west of the study area, were obtained from the Environment Canada website (www.climate.weather.gc.ca). Shade temperatures measured in Pinawa before or after the surveys were normally within 2 degrees Celsius of these maxima. These temperatures represent prevailing

conditions as opposed to the actual surface temperatures experienced by the observed invertebrates. In the deep shade along most of the trail, with little or no wind, the surface temperature is expected to be close to the air temperature when below 0 C, and close to 0 C (controlled by thawing snow) when the prevailing air temperature is a few degrees higher.

Survey Results

Invertebrate activity was detected on 20 of 22 surveys (90 per cent) with prevailing air temperatures between -6 and +14 C (median, +2 C), and with minima between -13 and 0 C (median, -7 C) on the nights preceding the surveys (Fig. 5). These temperatures are well above long-term seasonal averages for the December – February period of about -20 C (daily minimum) and -10 C (daily maximum). Three additional surveys, where no invertebrate activity was detected, followed cold nights (minima below -20 C; three outlying points in Fig. 5). It is likely

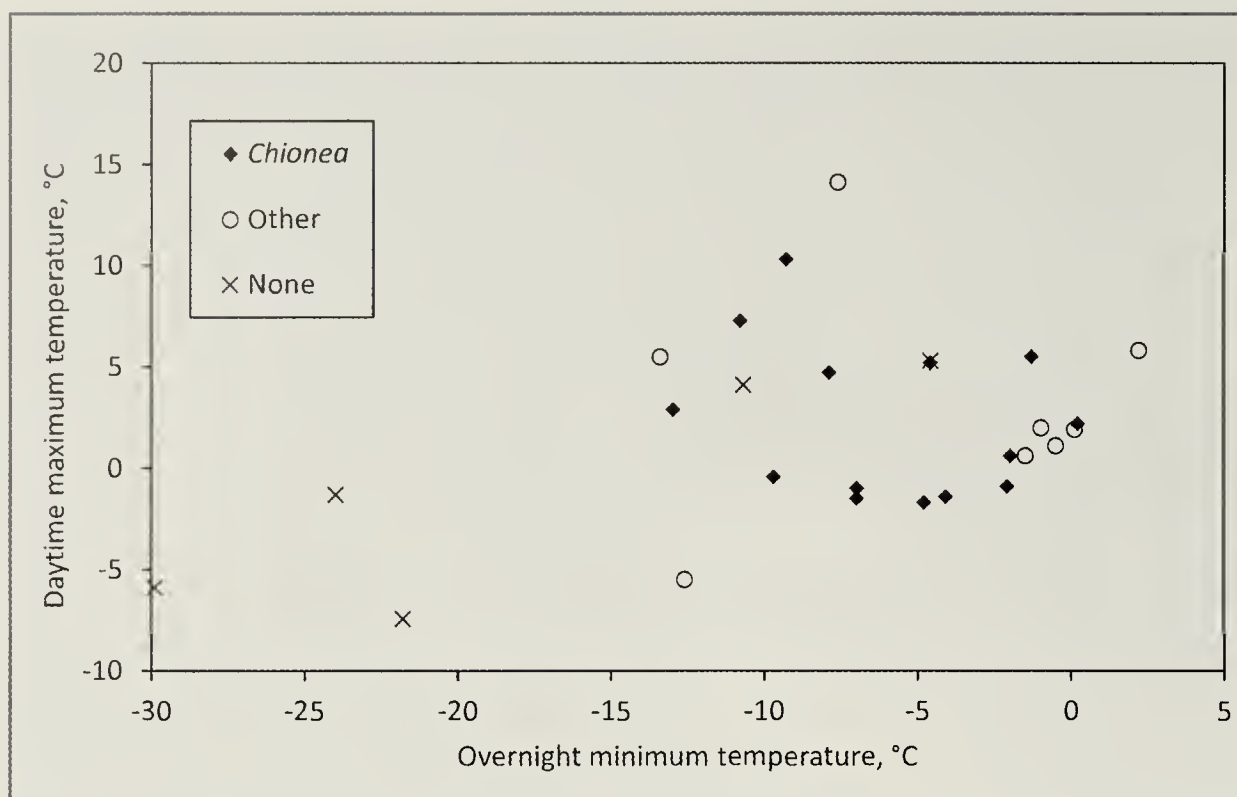


Figure 5: Prevailing temperatures for 25 invertebrate survey days, and for two other days when snow flies were observed. The three symbols indicate whether *Chionea valga* and sometimes other invertebrates, other invertebrates but not *C. valga*, or no invertebrates were found.

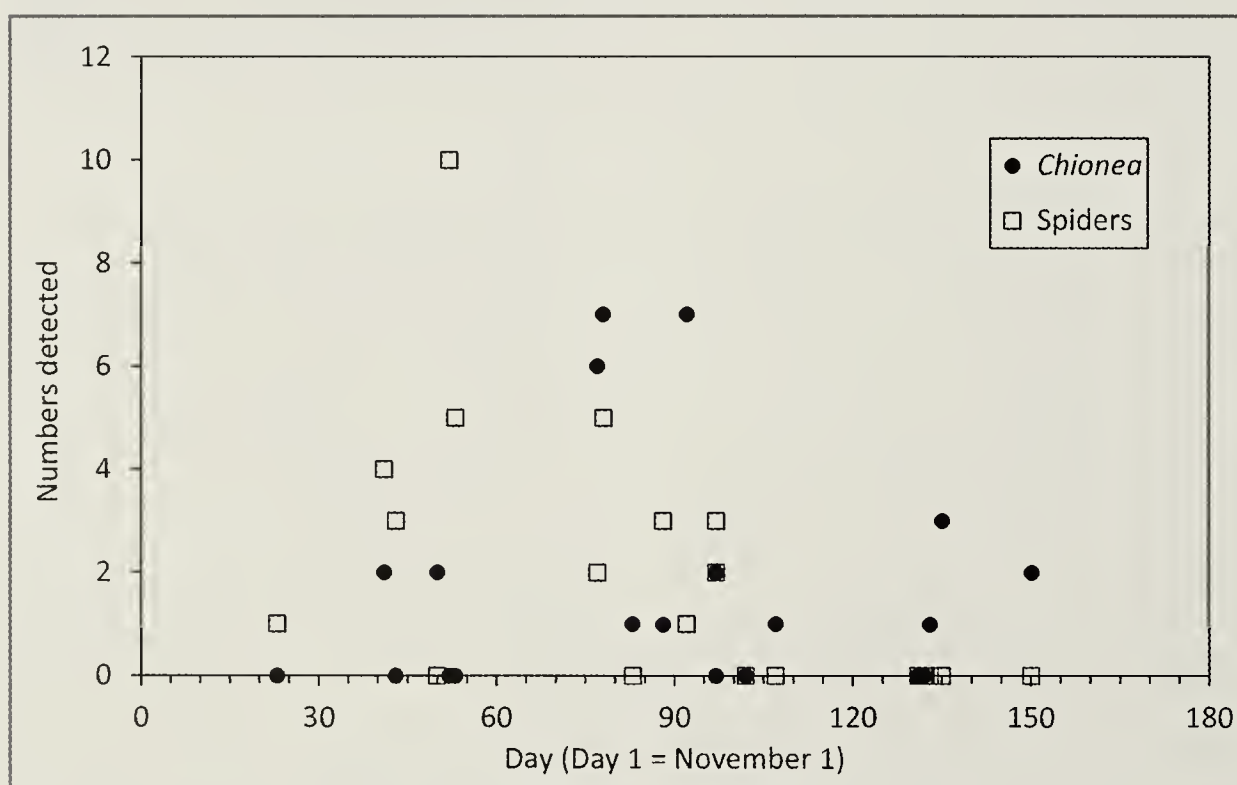


Figure 6. Numbers of snow flies (*Chionea valga*) and spiders (various species) detected on individual surveys.

that the low overnight temperatures, and correspondingly brief daytime mild conditions, inhibited invertebrate activity. Therefore these three surveys are included in Table 1 and Fig. 5, but were excluded from calculation of the following percentages, which are thus based on 22 surveys.

Altogether, 34 snow flies were detected on 12 surveys (55 per cent) in five different winters between December 11 (2014) and March 30 (2014), at prevailing temperatures between -2 and $+10$ C, as shown in Figs. 5 and 6. These comprised

nine males, 17 females, and nine of undetermined sex (in some early surveys). High counts of six or seven were detected in the second half of January in three different years (January 16, 2010, January 17, 2015, and January 31, 2009); the remaining counts did not exceed three individuals. Incidental observations of single *C. valga* at other localities in the Pinawa area, November 18 and December 1, 2012, extend the observed activity period to November 18 – March 30.

Thirty-nine spiders (order Araneae;

mostly unidentified, but evidently several species) were detected on 11 surveys (50 per cent) in five different winters. Extreme dates were November 23 (2014) and February 5 (2012), and the maximum count was 10, on December 22, 2014 (Fig. 6). Springtails or “snow fleas” (order Collembola, likely *Hypogastrura nivicola*) were detected in varying abundance on nine surveys (41 per cent) in four different winters between December 22 (2014) and March 13 (2014). These minute (about 2 mm total length), swarming creatures are perhaps the best-known of all snow invertebrates.⁸⁻¹⁰ Dark-winged fungus gnats (Diptera: Sciaridae, at least two species) were detected on 10 surveys (45 per cent) in four different winters between November 23 (2014) and March 13 (2014). These tiny, fully winged insects were seen both flying and crawling on the snow (Fig. 7). It is doubtful that adults survive beyond the end of a mild spell; three live individuals and a dead one were noted on March 13, 2014, while at least five dead ones were seen under colder conditions three days later.

Two snow scorpion-flies (Mecoptera: *Boreus* sp.) were found but unfortunately not photographed on February 15, 2011. Several additional invertebrates were detected only once or twice in December (Figs. 8 and 9): tiny rove beetles (Coleoptera: Staphylinidae), a flightless gall wasp (Hymenoptera: Cynipidae, *Philonix fulvicollis*), a few small, unidentified flies or wasps, and an unidentified centipede (class Chilopoda).

Human traffic on the trail was very light. In 35 hours of surveys, I encountered only one snowmobile and (in 2015) three cross-country skiers. Snow compaction was just sufficient for easy walking.

Table 1. Monthly and seasonal distribution of survey dates.

SEASON	NOV	DEC	JAN	FEB	MAR	APR	TOTAL
2008-2009	0	0	1	0	1	0	2
2009-2010	0	0	1	0	0	0	1
2010-2011	0	0	0	2	0	0	2
2011-2012	0	0	(1)*	1	1	0	2 (1)
2012-2013	0	0	0	0	0	0	0
2013-2014	0	0	0	0	2 (2)	(1)	2 (3)
2014-2015	1	5	3	1	1 (1)	0	11 (1)
TOTALS	1	5	5 (1)	4	5 (3)	0 (1)	20 (5)

* Numbers of surveys in which no invertebrates were detected are shown in parentheses.

Discussion

Terrestrial invertebrate activity during winter in Manitoba is of course greatly reduced from summer levels, and largely restricted to locations beneath deep snow (subnivean habitat), where stable near-freezing temperatures occur.^{8,11} Activity on the snow surface (supranivean habitat), where temperatures often fall far below freezing, is much more limited.

The low numbers of *C. valga* detected in the surveys limit the data analysis, but some comparison is possible with studies of *C. araneoides* by Hågvar near Oslo, Norway.^{2,12}

The long activity period (November 18 – March 30, representing almost the entire period of lasting snow cover) is consistent with Hågvar’s observations.¹² It also supports Byers’ inference, from a large compilation of specimen records, that *C. valga* has a single generation per year with long but undetermined individual life spans.¹ Byers’ compiled specimen records for *C. valga* extend from mid-September to early May, with the majority from December to March.

The three highest survey counts correspond to an apparent peak density of seven active snow flies per hectare of snow surface, and the

remaining counts suggest an average season-long density of just one or two per hectare on suitable days. These values are much lower than densities of up to 86 *C. araneoides* per hectare obtained in Norway by Hågvar, using a similar single-transect methodology.²

Apparent densities are subject to possible biases, both positive and negative. Funneling or trapping of insects along the trail would introduce a positive bias, i.e. higher density than the habitat average. Individual *C. valga* crossed the survey trail with little difficulty, however, easily scaling short climbs at the rim of the trail, and being only briefly disoriented in trampled snow. Thus, snow flies seemed neither to avoid the trail nor to be hindered or delayed much by it. If snow flies



Figure 7. Dark-winged fungus gnât (Diptera: Sciaridae) near Pinawa, December 13, 2014.



Figure 8. Rove beetle (Coleoptera: Staphylinidae) near Pinawa, December 23, 2014.



Figure 9. Gall wasp (Hymenoptera: Cynipidae: *Philonix fulvicollis*) near Pinawa, December 13, 2014. This individual represents the fall generation consisting only of flightless females (note the rudimentary wings). The name *Philonix* means “snow-loving”.

avoided the compacted snow along the trail, this would introduce a negative bias; however, frequent binocular scans off-trail failed to reveal any additional insects. Based on these observations I suspect, if anything, a slight positive bias to the apparent densities, and believe that comparison with Hågvar's numbers is valid. Possibly the second-growth forest sampled in the Pinawa surveys is not optimal habitat for *C. valga*. Paquin indicates that, in Quebec, *C. valga* is associated mainly with mature and old-growth forest.¹³

The observed densities represent only those individual insects that emerge from beneath the snow to roam on the surface, and are not indicative of actual population densities. Byers interpreted surface movements as a means of dispersal to assure genetic diversity, rather than a mate-location strategy as previously suggested.^{1-3,7} Such dispersal may only involve a small fraction of the population. The late-January cluster of high survey counts for *C. valga* (Fig. 6) is statistically significant, based on calculated Poisson distributions for 34 random encounters on 22 surveys at constant density. This cluster coincides with a January activity peak for *C. araneoides*, which corresponds with peak egg-laying in that species in Norway.^{2,12}

The only localized concentration observed was a group of three (from a survey total of six) within about 3 m of each other on January 16, 2010. The overall count of nine males and 17 females is not a significant deviation from a 1:1 sex ratio at the 95 per cent confidence level (based on binomial distribution). For *C. araneoides* in Norway, Hågvar found a sex ratio close to 1:1 with much larger samples (daily totals as high as 50 males and 43 females).²

The temperatures shown in Fig. 5 indicate the range of suitable

prevailing conditions for seeking *C. valga*. There is insufficient data under marginal conditions to define upper and lower limits for activity, but several previous authors have investigated this in detail. Hågvar found *C. araneoides* in chill coma (i.e. immobile) in the field at -5 to -6 C. Aitchison compiled minimum activity temperatures ranging from -10 to -2 C, as reported by various authors for other *Chionea* species.⁸


While spiders slightly outnumbered snow flies in the survey totals, they were found primarily in December and January, with none later than February 5 (2011). Compared with snow flies their movements on the snow surface were slow and limited, as noted previously by Chapman.⁶ Aitchison found that many Manitoba spider species are relatively cold-hardy, remaining active well into the winter, but none appear to be winter specialists like snow flies.¹¹

Further Reading

The biogeography and evolutionary history of the 35 *Chionea* species currently recognized worldwide have been discussed by de Jong and Ciliberti.¹⁴ These insects occur in boreal and montane forested regions of Eurasia and North America with lasting winter snow cover. The taxonomy, anatomy, physiological adaptation for low-temperature activity, and natural history of North American species has been reviewed in detail by Byers, as summarized by Schrock.^{1,3} Aitchison has reviewed winter invertebrate activity worldwide, with emphasis on activity in subnivean habitats where a stable microclimate exists.⁸ Internet searching reveals many other publications, from old anecdotal reports of snow flies to recent papers on newly described species from southern Europe to China and Korea. I would be interested to hear of other

observations of *C. valga* in or near the Prairie Provinces.

I thank Scott Digweed for the wasp identification and Terry Galloway for helpful information.

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SEPTEMBER 30 – OCTOBER 2, 2016 SASKATOON, SASKATCHEWAN

The Saskatoon Nature Society is pleased to host Nature Saskatchewan's Fall Meet from September 30 to October 2, 2016. Join us in celebration of Whooping Cranes — welcome visitors to our region at this time of year. If you've really seen these amazing large cranes too many times already or want to do something more active, we have some interesting field trip alternatives. Optional field trips are also offered for late Friday evening and for Sunday. Many of our field trips have size limits, so register early to secure your spot.

Friday, September 30

Dinner on your own

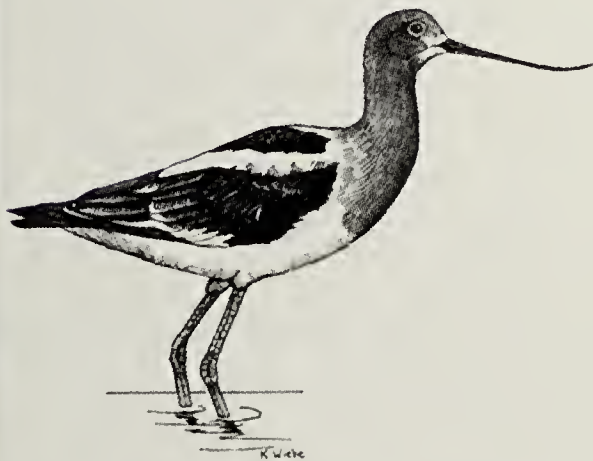
6:00 pm Registration & Reception

Light refreshments and cash bar, displays to view (supper on your own).

7:30 pm Program

- Welcome and opening remarks
- Larry Morgotch Images of Nature Event (bring 10 images to share – watch for further details in the Fall issue of Blue Jay)
- Overview of field trips

9:00 pm Owl Banding Field Trip



Saturday, October 1

Breakfast on your own

8:00 am Whooping Crane Field Trip

8:00 am Peregrine Falcon Field Trip

8:30 am Wanuskewin Field Trip

4:00 pm Nature Saskatchewan Business Meeting, Nutana Legion

Report from the Board, Resolutions, Members' Forum

6:00 pm Cocktails (cash bar)

6:30 pm Banquet

7:30 pm Awards Presentation

8:00 pm Keynote Speaker: Brian Johns

"The secret life of Whooping Cranes past, present and future." Brian is President of the Whooping Crane Conservation Association and retired from a distinguished career as coordinator of the Whooping Crane monitoring program for Canadian Wildlife Service.

Sunday, October 2

Breakfast on your own

9:00 am Blackstrap Lake Field Trip

NOTE: registration fees increase by \$15 after September 1, 2016. We really want you to register early! Use the registration form provided on page 25 or download it from the Saskatoon Nature Society website (www.saskatoonnaturesociety.sk.ca).

We'll be meeting at the Royal Canadian Legion Branch 362, 3021 Louise St. (See www.nutanalegion.ca for map and contact information.) All field trips will depart from and return to this location.

Driving Directions: From Circle Drive, turn west onto Taylor Street East. Get into the left lane and take the first left turn on to Arlington Avenue. Drive one very long block and turn left onto Louise Street. Follow Louise around the corner to the right, and look for the Legion Hall and parking lot on your right.

2016 FALL MEET – FIELD TRIPS

Owl Banding Field Trip

9:00 pm Friday (limit of 25 people, no fee, carpool).

Join Marten Stoffel at his saw-whet owl fall migration station just north of Saskatoon. These owls only move after dark so we will leave in a car convoy at 9 pm. Participants should be back in Saskatoon shortly after 11 pm. Priority will be given to registered out-of-town participants. This trip may be cancelled if the weather is bad.

Whooping Crane Field Trip

8:00 am Saturday (limit of 55 participants, fee is \$40, travel by bus, lunch provided).

We will travel by bus to locations east of Saskatoon where whooping cranes have frequently been seen in recent years. There are no guarantees, but in previous years our success rate for finding whoopers has been high. We also expect to see sandhill cranes and migrating waterfowl. We will stop for lunch in Cudworth and, if time permits, we'll take a walk to look for other migrants. Bring binoculars, a water bottle and appropriate footwear.

Peregrine Falcon Hunt

8:00 am Saturday (limit of 20 people, no fee, carpool, morning only).

Watch the world's fastest animal – the peregrine falcon – catch its prey. We will carpool and drive approximately 30 minutes outside of the city to where the falcon (trained by falconer Dr. Lynn Oliphant) will hunt. This trip will require a fair bit of walking and standing. It may be cancelled if the weather is poor due to limitations on the falcon's ability to fly and hunt properly.

NOTE: All field trips depart from the Royal Canadian Legion Branch 362 at 3021 Louise St.



Photo credit: Annie McLeod

Wanuskewin Heritage Park

8:30 am Saturday (Fee is \$10, travel by bus, lunch available for purchase on-site).

Human history and natural heritage come together in Wanuskewin Heritage Park. This tour will offer the opportunity to learn about 6,000 years of habitation in this rich natural area. It will include activities guided by Wanuskewin interpreters and a chance to ramble and explore over 6 km of trails along the Opimihaw Creek Valley and across the grassy uplands. Lunch can be purchased in the Visitor Centre restaurant, and there are galleries and a gift shop to explore if the weather is bad.

Blackstrap Lake Field Trip

9:00 am Sunday

This optional field trip is ideal for folks who are travelling home to points south of Saskatoon. We'll travel in a vehicle convoy to look for migrating waterfowl that congregate on Blackstrap Lake in the fall, and stop for lunch at a picnic site in the park (you can pick up something to eat during the trip at the Subway at the entrance to Dundurn). Spend an hour with us, or a few; you can leave the trip at any time.

SEPTEMBER 30 – OCTOBER 2, 2016

SASKATOON, SASKATCHEWAN

Accommodation Options

Do your research and book early for better deals. For further information, contact Tourism Saskatoon at 1-800-567-2444 or consult its website at www.tourismsaskatoon.com. There are also a number of Saskatoon listings on Airbnb that may be worth checking out.

HOTEL

These hotels are relatively close to our meeting location, of reasonable quality and provide breakfast. Note that you can get a better rate if you are willing to prepay.

Best Western Plus East Side:
3331 8th Street E
306-986-2400

Hampton Inn Saskatoon South:
105 Stonebridge Boulevard
306-665-9898

These slightly less expensive alternatives are near the airport. The drive to our meeting place is relatively easy from there, following Circle Drive across the river to the Taylor Street exit.

Day's Inn Saskatoon:
2000 Idylwyld Drive North
306-242-3297

Super 8 Saskatoon
near Saskatoon Airport:
706 Circle Drive East
306-384-8989

Note: there is more than one Super 8 in Saskatoon. This one is the better of them.

Hampton Inn and Suites by Hilton
110 Gateway Boulevard
306-933-1010

Accommodation Continued

BED & BREAKFAST:
Glacier Park Bed and Breakfast:
46 Harvard Crescent
306-381-0912
www.glacierparkbb.com

Inn-Chanted Bed and Breakfast:
210 Laycoe Crescent
306-651-5006
www.bbcanada.com/13229.html

Prairie Rose Bed and Breakfast:
526 Guelph Crescent
306-374-7204
www.bbcanada.com/14424.html

Wild Rose Bed and Breakfast:
1426 Acadia Drive
306-979-6640
www.wildrosebb.com

CAMPING

Gordon Howe Campground:
1640 Avenue P South
135 electrical & water sites
plus 12 tent sites
1-866-855-6655

Nature Saskatchewan Fall Meet

September 30 - October 2, 2016

Saskatoon, Saskatchewan

www.saskatoonnaturesociety.sk.ca

Registration Form (Please Print)

Names: _____

Address: _____

City _____ Prov. _____

Postal Code _____ Phone: _____

e-mail: _____

Registration Fee includes Friday evening social,
Saturday business meeting and
Saturday evening banquet.

Please register before September 1, 2016

Before Sep 1: \$65.00 X _____
After Sep 1: \$80.00 X _____ = \$ _____
Student fee: \$65.00 X _____

Additional Banquet Tickets:
\$32.00 X _____ = \$ _____

Please indicated if you have any special dietary
needs for meals (allergies/vegetarian/vegan/etc.)

Saturday, October 1 Field Trip Options:
Please choose only one option.

Whooping Crane \$40.00 X _____ = \$ _____
Maximum 55 participants.
Includes bus transport & lunch.

Wanuskewin \$10.00 X _____ = \$ _____
Includes bus transport
and admission

Falcon Hunt \$0.00 X _____
Maximum 20 participants.
No fee. Car-pool transport.

TOTAL OF ALL FEES = \$ _____

Additional Field Trips (no fees)

_____ Friday, Sep 30 **Saw-whet Owl Banding**
(Maximum 25 participants)

_____ Sunday, Oct 2 **Blackstrap Lake Field Trip**

Please make cheque payable to:
Saskatoon Nature Society

Mail your completed form to:

Nature Saskatchewan Fall Meet
2327 Lansdowne Avenue,
Saskatoon, SK. S7S 1G9

NATURE SASKATCHEWAN AWARDS:

Each year at the Fall Meet, Nature Saskatchewan recognizes outstanding service and contributions that Society members, and/or affiliate and partner organizations, have made toward Nature Saskatchewan's objectives and goals. Recently, the Awards Committee has recommended that the awards be restructured slightly. Clear criteria have been established in terms of purpose, eligibility, and nomination procedure. This year, we are seeking nominations for three classes of awards – **Volunteer Recognition Award, Fellows Award, and Conservation Award.**

The Volunteer Recognition Award and Conservation Award can be conferred on the same individual or organization more than once.

The Cliff Shaw Award will also be presented at the Fall Meet. The recipient is chosen by the Blue Jay editor.

Local societies throughout Saskatchewan play an important role in furthering conservation and appreciation of nature at the local level. There are always those who step up to the plate to organize meetings and outings, go the extra mile to help others connect with nature, or work silently and tirelessly behind the scenes.

It's time those contributions were recognized. We encourage anyone from a local society to consider nominating someone from your local group who is a Nature Saskatchewan member, who deserves recognition for any of these awards.

Note that nominees for the Volunteer Recognition Award and Fellows Award must hold a current membership with Nature Saskatchewan.

In the interests of space, we are including the Nomination Procedure only for the first award, since the procedure is the same for all three

awards. The criteria and names of past recipients can be found on the website here: www.naturesask.ca/what-we-do/awards. The office can also send you a copy by mail, if you prefer.

Nomination Procedure

- Nominations can be made by Nature Saskatchewan members, directors, and staff. Local societies should consider nominating someone from their local group.
- Self-nominations will not be accepted.
- Nominations are to be made in writing and submitted by the published deadline.
- Nominations are to include the following information: The nominee's name, address, and phone number; The nominator's name and contact information; Details of the nominee's efforts.
- The Awards Committee will independently rate the nominations, and confirm that the nominee holds a current membership with Nature Saskatchewan.
- Chairperson of the Awards Committee will bring the recommendations to the Board.
- If ratified, the President or his/her delegate shall confer the respective Awards to the recipients at the Fall Meet.

The deadline to submit nominations for awards is August 31, 2016.

All Nature Saskatchewan Awards consist of the following:

- The announcement of the recipient's name at the Fall Meet.
- The presentation of a certificate recognizing the contribution.
- An announcement in Blue Jay recognizing the distinction.

1. Volunteer Recognition Award

This award was created in 1996 to acknowledge an individual Nature Saskatchewan member who has devoted significant time and energy to promoting the objectives of the Society, including contributions made at the local society level. Priority for this award will be given to a Nature Saskatchewan member whose volunteer work has helped to enhance the public awareness of the Society (this may include contributions to a Society conservation project or program). It may be appropriate in some years to have this award shared by more than one person, if they have worked together on the same project, or on closely related projects.

Eligibility

Nature Saskatchewan members who have provided valuable time and effort in contributing to the Society are eligible. Local societies are encouraged to nominate someone from their local group who is a Nature Saskatchewan member, recognizing that Nature Saskatchewan values their contributions to the overall goals of the Society. The nominee must be a current member of Nature Saskatchewan. This award can be conferred on the same person more than once.

CALL FOR NOMINATIONS

2. Fellows Award

A motion was passed at the 1987 Annual General Meeting creating a new class of honorary membership entitled "Fellows of the Saskatchewan Natural History Society." This award recognizes an extensive and continuing contribution of time over many years to the Society and its objectives. Up to five recipients may be chosen annually. Once selected, Fellows hold that title as long as they remain members of the Society. It is the highest honour the Society can bestow upon a member.

Eligibility

Eligible individuals are members of Nature Saskatchewan who have provided an outstanding time and work contribution to the Society over many years. These contributions have been significant, and may have come in the form of leadership, communication, authorship, social media outreach, research, and other areas.

The contributions have been cumulative or ongoing, and represent long-standing service or commitment to Nature Saskatchewan and its objectives.

3. Conservation Award

In addition to advocacy and other forms of conservation action, it is important that Nature Saskatchewan recognize, as it has done since 1953, those both within and beyond the organization who have done "meritorious work in the interest of conservation in Saskatchewan."

Nature Saskatchewan's Conservation Award will be presented to an individual or organization whose total contribution to conservation is outstanding, whether in relation to a particular project or in a number of roles over a period of years.

Eligibility

Individuals, affiliate and/or partner organizations, not-for-profit associations, institutions, community groups, businesses, government and non-government organizations that have contributed significantly to conservation in Saskatchewan.

This award can be conferred on the same individual or organization more than once.

CALLING ALL PHOTOGRAPHERS

The Board has agreed to continue the approach with respect to the Larry Morgotch Memorial Award for photography. Over the past few years, entries for this award, which recognizes excellence in photography, have fallen considerably.

To encourage more people to share their photos, on a continuing basis we will be staging the **Larry Morgotch Photo Event** to acknowledge excellence in nature photography as exemplified by Larry Morgotch. The event will celebrate nature through photography, without the element of competition. No one will receive an award; instead, all contributions will be enjoyed and appreciated.

Members attending the Fall Meet are invited to present photos of their choice on Friday evening that portray

any aspect of nature from anywhere. Just bring your photos on a memory stick or USB flash drive, or a CD when you come to the Fall Meet. Digital images may be individual files, assembled as a PowerPoint or similar type of presentation, or an executable file. Name the files so they display in the correct order. Individual files must be in JPG format with the longest dimension no more than 1300 pixels. If your presentation was made using a Macintosh computer, try it first on a PC to make sure it runs correctly. Your presentation should be a maximum of 5 minutes. We'll have a computer and digital projector already set up.

Here's a chance to showcase some of your favourite images of nature without pressure of competition.

CALL FOR RESOLUTIONS

The resolutions considered during the Business Meeting at each year's Fall Meet are important expressions of member concerns on environmental issues. The Nature Saskatchewan Board of Directors is responsible for acting on all resolutions that are passed by the members. This includes sending resolutions directly to the responsible government ministry and pursuing further action and/or meetings with government and others, as deemed appropriate.

Anyone wishing to submit a resolution for consideration at the 2016 Business Meeting, to be held on Saturday, October 1, is asked to send a written draft to the Nature Saskatchewan Office (info@naturesask.ca) no later than Friday, August 12. This provides an opportunity to receive feedback from members of the resolutions committee that can help to improve your resolution. It also helps us prepare for the meeting. Please note that resolutions not submitted to the Nature Saskatchewan office by 5 pm on Friday, September 9 will be considered only with the agreement of a 2/3 majority of those attending the business meeting.

Resolution Guidelines:

1. Resolutions must be in keeping with the society's mandate, bylaws and goals.
2. All resolutions must be submitted in writing.
3. A resolution is, essentially, an exercise in communication. Simple, clear language and focus on one topic or issue is most effective.
4. Supporting information presented in "Whereas" statements must be accurate and factual.
5. Resolutions should be no longer than one page, and preferably less.

LEUCISTIC CACKLING GOOSE IN WASCANA LAKE

Brian Sterenberg
2336 Montreal Street
Regina, SK S4T 3K5
brian01@sasktel.net



A leucistic cackling goose (*Branta hutchinsii*) was observed in Wascana Lake between Pine and Spruce Islands (50°25'39.2"N 104°36'28.6"W) at 17:00 h on March 23, 2016. One photo (below) shows the leucistic goose alone, while the other shows the leucistic goose with a normally pigmented Canada goose for contrast. 🦢



Photo credit: Brian Sterenberg

WILDFIRE AND BALD EAGLES: SUMMER ON LAC LA RONGE SASKATCHEWAN IN 2015

Dale Mierau, C/O SMRC,
479 First Ave. N., Saskatoon, SK S7K 1X5
d.mierau@shaw.ca

For years I've observed breeding and non-breeding bald eagles (*Haliaeetus leucocephalus*) in a 70 km² area on Lac La Ronge. Lac La Ronge is a large glacial lake situated on the southern border of the pre-Cambrian shield in northern Saskatchewan. A shoreline of 1,015 km surrounds a surface area of 1,413 km² with 1,035 rocky islands.¹

Breeding bald eagles return to Lac La Ronge in late March and early April. During this critical time, stormy weather on the prairies can interfere with bald eagle migration with the end result of lower rates of reproduction. Weather anomaly during bald eagle migration was identified as detrimental to reproduction at Besnard Lake in 1975.^{3,4} Severe weather during the migration of breeding bald eagles in 2013 again resulted in low productivity at Besnard Lake² and Lac La Ronge.⁵ In 2013, the area of observation on Lac La Ronge produced only one fledgling. In 2014, after a mild and early spring, bald eagle reproduction rebounded at Besnard Lake² and the area of observation on Lac La Ronge, where eight young fledged.⁶

The spring of 2015 was mild on the prairies, without late snow storms.

In late May, eight nesting pairs were tending nests in the area of observation. A fuzzy, tawny-coloured head was visible at McCulloch Island on June 2 (Fig. 1).

A lightning storm on June 7, 2015 ignited wildfires that were to have serious consequences for Lac La Ronge bald eagles (Fig. 2). Dense smoke from wildfire filled the air on June 8, 2015 (Fig. 3).

The dense smoke resulted in poor visibility, interfered with breathing and irritated the eyes. Smoke-filled air

would be the norm for the ensuing six weeks, until late July.

On June 20, a shift in the wind cleared the air enough for a day-trip to check on the nestlings. Two young occupied nests at McCulloch, Archer, Camp, and Jackson Islands (Fig. 4). The Howard and Town nests held one each.

As of June 20, 2015, there were ten nestlings in six nests.

I ventured on to the lake to check nests as often as weather and smoke allowed. The air cleared enough on June 27 for another extended tour to visit all the nests. On that day I found four nestling carcasses. The nestlings at Howard, Jackson had expired along with both young McCulloch (Fig. 5).

Fires continued to burn, with frequent flare-ups and an increasing density of smoke, even after the mandatory evacuation of the town and area on July 5 (Fig. 6).

The fire consumed forest and property in early July (Fig. 7).

Only two Bald Eagle young remained alive on July 6 — one at Archer and one at Jackson (Fig. 8).

Smoke from wildfires made lake travel a challenge. Excursions to nests were necessarily brief and limited to one or two per trip (Fig. 9).

The air cleared in late July with the onset of cooler weather and rain. The nestlings at Archer and Jackson had survived. Adults no longer attended the nests at Camp, Howard, McCulloch and Town.

The weather became warm and dry in late July. Wildfires, which resulted in more smoke and poor visibility, rekindled on the west, north, northeast, east and south east sides of the lake (Fig. 10).

During the first week in August, the immediate threat of smoke from wildfire came to an end. The fledgling at Archer appeared robust and on track

for self-reliance. However, the fledgling at Jackson appeared less capable. She left the nest later than usual and did not (for some reason) sit at the nest for almost a week despite being close to it.

She was very vocal and her calls could be heard for kilometres at all times of the day (Fig. 11).

She was still not self-reliant by mid-September when she waited to be fed on a rock near a hunting perch (Fig. 12).

In the spring of 2015, there were signs of a productive season for Lac La Ronge bald eagles. However, a shroud of dense smoke from wildfires created poor visibility and interfered with the gathering of food for the young. Only two of the ten nestlings in the area of observation survived to fledge. Near the end of the season, it was my impression that only one of the two survivors was fit enough to survive the migration south.

Acknowledgements:

The author would like to thank Robert MacPherson for his contribution of the images of the burning cabin and small island.

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Figure 1. The first bald eagle nestling seen in 2015 was on McCulloch Island.



Figure 2. Lightning filled the sky over Lac La Ronge during the night of June 7, 2015.

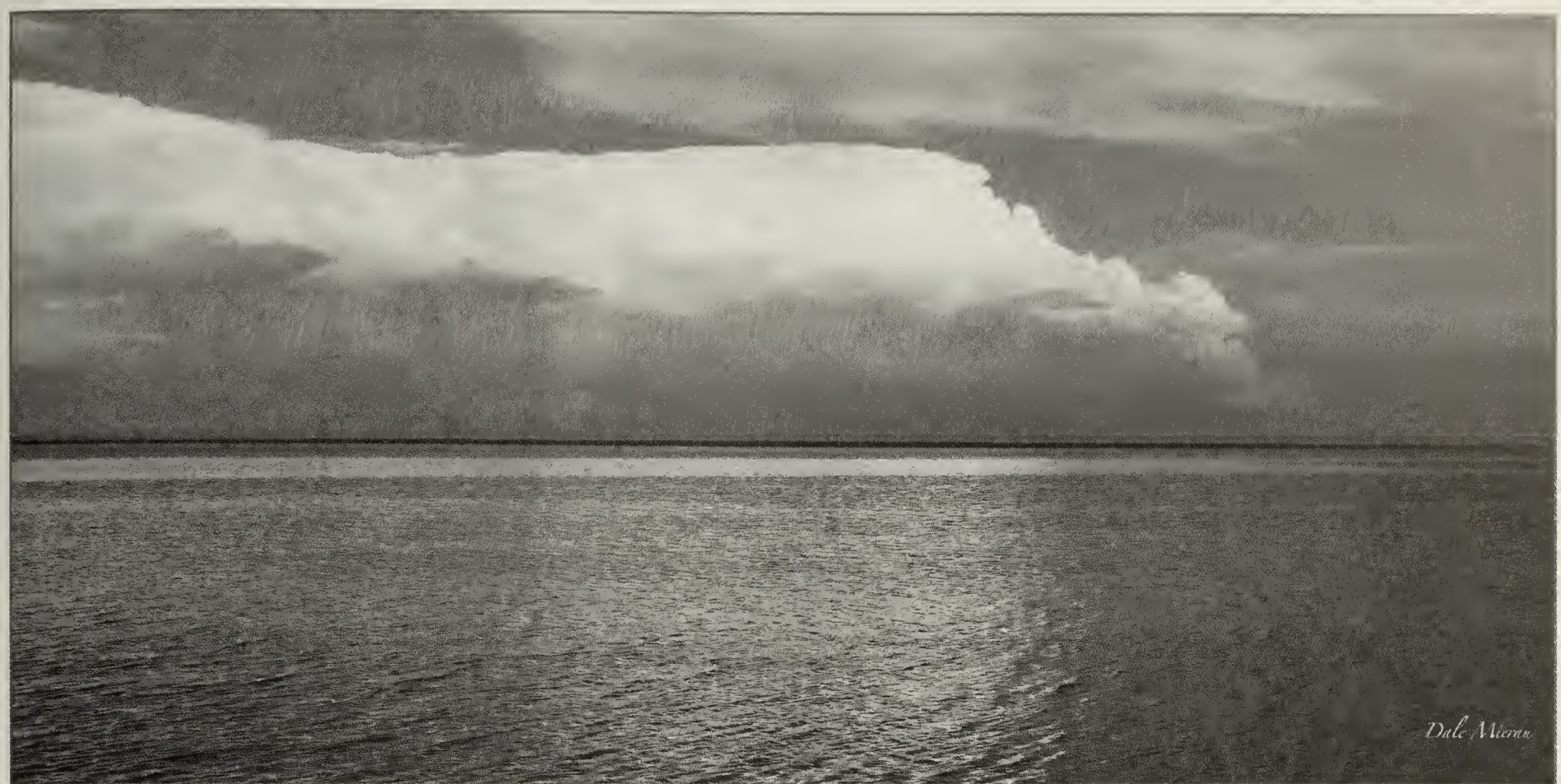


Figure 3. Smoke from fires, ignited by lightning on June 7, 2015, dominated the western horizon on June 8.



Figure 4 Two young were visible at Archer Island on June 20



Figure 5. The carcass of a bald eagle nestling on the brim of the Howard nest on June 27.



Figure 6. A wall of smoke from wildfires to the south, west and north of La Ronge on July 5 — the day that the area was evacuated.

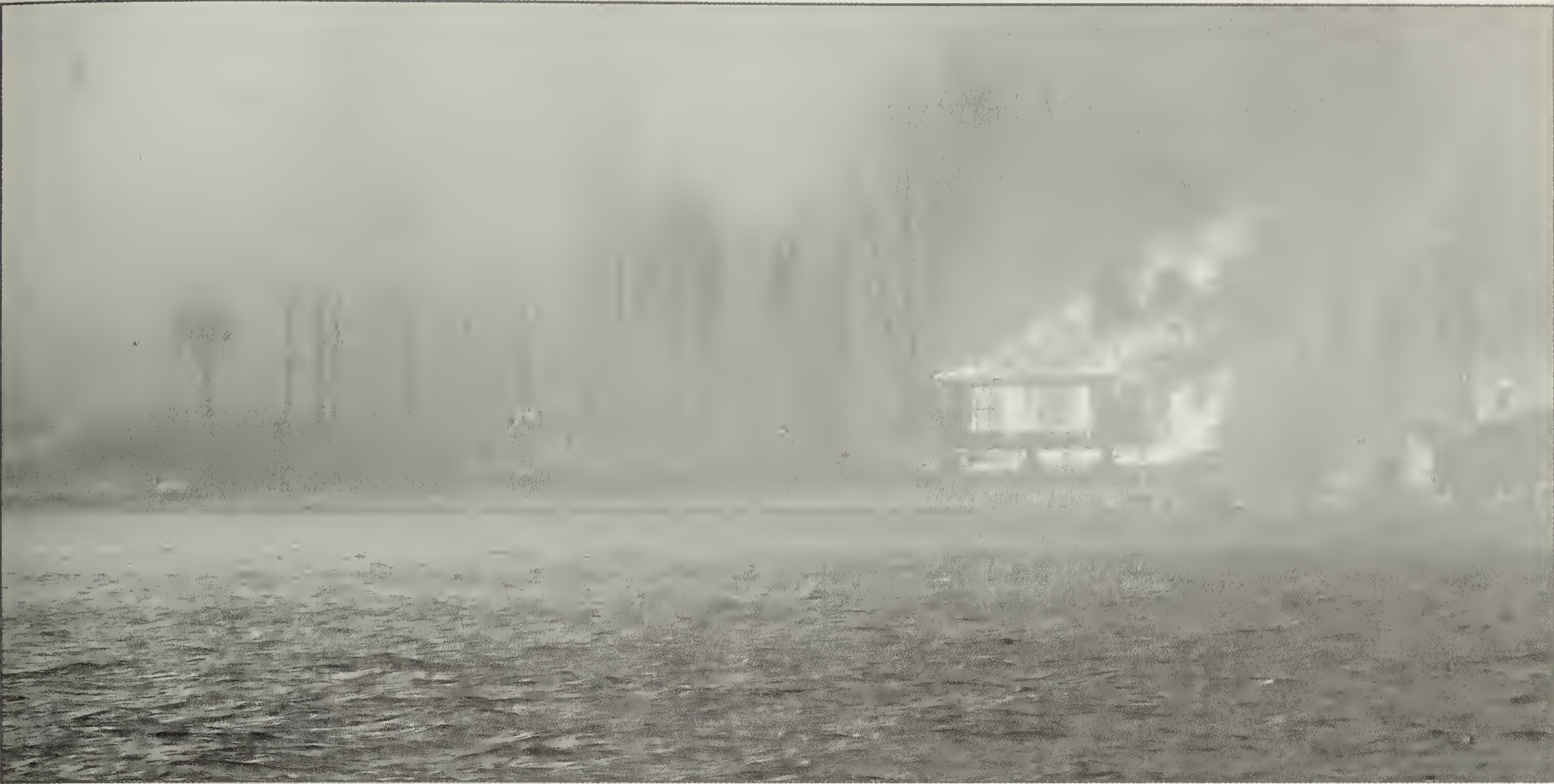


Figure 7. The shores of Lac La Ronge were ablaze on July 5, 2015.



Dale Micraa

Figure 8. The surviving nestling at the Jackson nest, partially obscured by smoke on July 6.

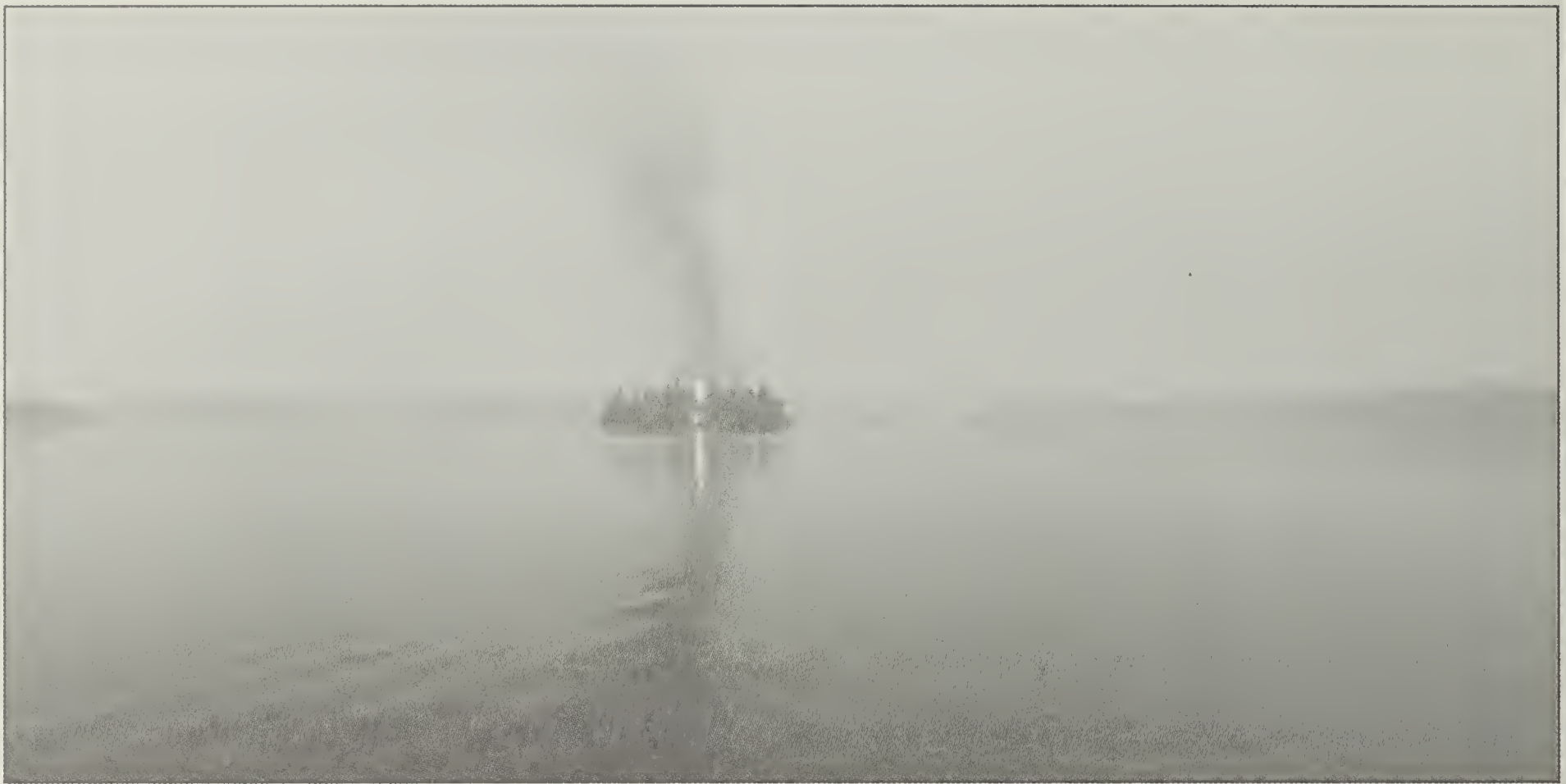


Figure 9. A small, isolated island was ablaze on July 8, likely from an airborne burning leaf.



Figure 10. Firefighters responded with force to an aggressive fire flared up in the Hunter Bay area on August 2.



Figure 11. The fledgling at the Jackson nest continued to pester its parents well past the time that it should have been hunting successfully.




Figure 12. The Jackson fledgling standing on a rock and waiting to be fed to be in mid-September. 



Figure 1. Adult Loggerhead Shrike and two of three fledged young in the Pembina Valley, Manitoba (June 27, 2015). Photo credit: Paul Goosser

A BREEDING RECORD FOR THE LOGGERHEAD SHRIKE IN MANITOBA'S PEMBINA VALLEY

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Morden, MB R6M 0B2
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Winnipeg, MB R3R 1B7
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The loggerhead shrike (*Lanius ludovicianus*), an uncommon breeder in Manitoba, is found primarily in the southwest corner of the province.¹ Manitoba's loggerhead shrike population has sharply declined during the past three decades.^{1,2} A combination of limiting factors including habitat loss, habitat fragmentation and deterioration, increased predation and changing weather patterns are thought to be contributing to ongoing declines of the loggerhead shrikes (K. De Smet, pers. comm.).² Breeding Bird Survey trends show significant long-term declines for loggerhead shrikes in both Canada and the United States.³ Population decline is the reason for the loggerhead shrike being listed as Threatened (Prairie subspecies *excubitorides*) in Canada.^{2,4} In Manitoba the loggerhead shrike is listed as Endangered.⁵

The discovery of new breeding locations for species at risk is significant. Breeding sites found outside the focal range of a species indicate that additional habitat is available away from core breeding areas and provide opportunities for wildlife managers to expand conservation efforts. This is particularly important in Manitoba where the loggerhead shrike population has declined by about 87 per cent (1987-2013).² Loggerhead shrikes in southeastern Manitoba appear to be nearly extirpated.^{4,6} Nesting in the Winnipeg

area was last documented in 2009 (K. De Smet, pers. comm.) and the loggerhead shrike was reported in only four atlas squares in the eastern half of the province during the recent Manitoba Breeding Bird Atlas (MBBA) project (2010-2014).⁶ In this note, we document breeding evidence for the loggerhead shrike in the Pembina Valley of south-central Manitoba, an area outside of its current main nesting range.

On June 14, 2013, Ron and Emmy Wiebe observed a loggerhead shrike on a hydro wire in the Pembina Valley about 6.5 km northeast of the small community of Snowflake.⁷ The shrike was observed to fly from the wire into a low shrub. The Wiebes left the area but returned about 30 minutes later and again saw a shrike flying down into the same shrub. It did not reappear even after 10 to 15 minutes of observation time. The behaviour of the shrike suggested the bird may have been visiting a

possible nest site. Habitat in the vicinity included more than 100 ha of grassland pasture, scattered trees, 2-4 m tall shrubs and cropland.

On June 27, 2015, J.P. Goossen visited the area where the Wiebes had twice seen a shrike in 2013. Even though habitat conditions appeared suitable, no shrikes were seen. He then travelled 1 km south and saw a shrike in flight. He attempted to follow its flight but was unable to locate the bird. He then returned to the area where he had first seen the shrike in flight. During about 40 minutes of observations, he saw two adult loggerhead shrikes and three fledged young (Fig. 1). One young was observed to fly about 30 m. An adult was observed feeding at least one of the young (Fig. 2). Habitat in the vicinity of where the shrikes were seen included cropland, grassland and grassy roadside ditches. Hawthorne (*Crataegus* sp.) shrubs and a few scattered trees



Figure 2. Adult Loggerhead Shrike feeding a fledged young in the Pembina Valley, Manitoba (June 27, 2015). Photo credit: Paul Goossen

POETRY

GRACKLES

On this spring day of grayish overcast,
a broad and greening meadow, dotted now
with thirty grackles, makes an artful, plush,
and moving coverlid, the smart black birds
gregarious in digging out small grubs,
in probing grass clumps with their sickle bills
for beetles hidden there. Their walk is waggish —
a swaggering of drooping wing tips and
tails keeled and heads a-bob — with each quick step
that's taken: always scrounging, tracing out
a rug bi-colored, drab, of their own making.

And then the cloud deck thins; the sun glints down,
illuminates the patterned carpeting:
The silhouetted birds become a maze
of glossy purples, brassy greens, and gleams
of bronze and blue — an ostentatious show,
a pomp, a grand display, this seasonal
parade of jaunty grackles in the grass.

Victor C. Friesen

P.O. Box 65, Rosthern, SK S0K 3R0
306-232-5060



Common grackle. Photo credit: May Haga



Figure 3. Habitat where a Loggerhead Shrike family was observed in the Pembina Valley, Manitoba.

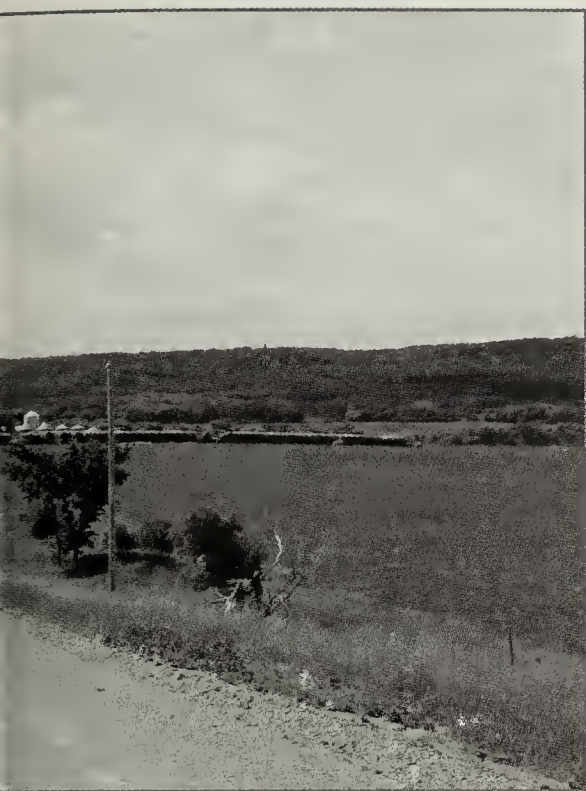
afforded potential suitable nesting habitat for the shrikes (Fig. 3).

In western Canada, loggerhead shrikes are typically found in the prairie and Aspen Parkland regions.² Agriculture is the predominant land-use in these areas. In southwestern Manitoba, cropland areas with sparse shelterbelts and hedgerows or grassland/pastureland areas with scattered trees and shrubs are typical habitats where loggerhead shrikes may be found (K. De Smet, pers. comm.).¹ In the Pembina Valley, suitable habitat for breeding loggerhead shrikes appears to be limited. Valley slopes are heavily forested and valley bottoms include extensive wetland and riparian habitat and unsuitable agricultural land.⁸ Pastures or roadside ditches with scattered trees and shrubs seem to be the most likely habitats in the valley that could support breeding pairs. Maintaining pasturelands and roadside ditches with scattered trees and shrubs is critical to encouraging loggerhead shrikes to breed.

Annual surveys and management for loggerhead shrikes and other rare grassland birds have been carried out since 1987 throughout much of southern Manitoba, especially in

: traditional grassland regions of the
: southwest, as part of the Threatened
: Grasslands Bird Project (K. De Smet,
: pers. comm.).⁹ More widespread and
: intensive surveys and point counts
: conducted throughout southern
: Manitoba during the MBBA (2010-
: 2014) further clarify the loggerhead
: shrike's current breeding distribution
: and abundance in the province.
: Virtually all confirmed loggerhead
: shrike breeding records during
: the atlas period were confined to
: extreme southwestern Manitoba
: (Fig. 4), particularly between
: the communities of Lyleton and
: Pipestone.⁶ The Pembina Valley
: location is about 185 km east of the
: loggerhead shrike's core breeding
: range in Manitoba and about 10
: km east-northeast of the nearest
: confirmed breeding record (nest)
: located near Snowflake in 1994 (K.
: De Smet, unpubl. data). The closest
: breeding record recorded during
: the recent atlas period, however,
: was near Glenboro, about 80 km
: northwest of the Pembina Valley
: location.⁶ The nearest North Dakota
: breeding record to the Pembina
: Valley location is about 95 km
: southwest in Ramsay County.¹⁰

In Manitoba, the loggerhead




ne 27, 2015). Photo credit: Paul Goossen

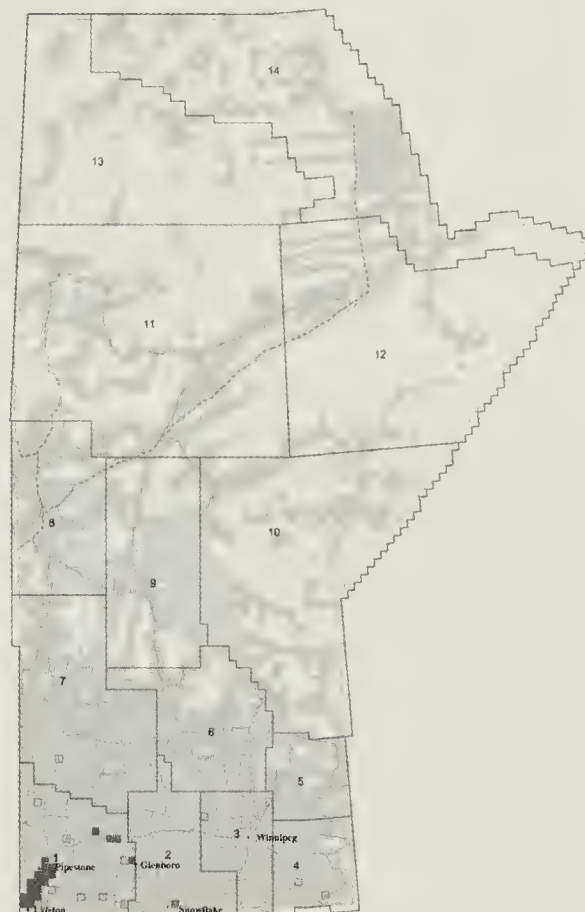
shrike is considered to be a rare migrant or visitor in areas outside of its core breeding range.¹ Nesting records outside of this core area do occur; however, these records are rare and have become almost non-existent since 2000 (K. De Smet, unpubl. data). Likewise, few loggerhead shrikes have been observed in the vicinity of the Pembina Valley since 2000 (K. De Smet, unpubl. data). They also appear to be rare within the valley itself. Al and Dorothy Schritt observed a loggerhead shrike in May (year unknown) in the Pembina Valley (A. Schritt, pers. comm.) about 9.5 km southeast of the 2015 family group location. Our observations confirm that loggerhead shrikes breed at least occasionally in the Pembina Valley.

Acknowledgements

We thank Ken De Smet (Manitoba Conservation and Water Stewardship) for providing us with unpublished records of Loggerhead Shrikes for south-central Manitoba. Thanks also to Christian Artuso, Ken De Smet, Valorie Goossen and an anonymous reviewer for their helpful review comments. Bird Studies Canada kindly gave permission for use of the Manitoba Breeding Bird Atlas map for breeding evidence of the loggerhead shrike.






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Atlas des oiseaux nicheurs du MANITOBA Breeding Bird Atlas



Loggerhead Shrike Pie-grièche migratrice *Lanius ludovicianus*

Breeding Evidence Nidification

-  Possible
-  Probable
-  Confirmed / Confirmée
-  Not Surveyed / Pas recensé
-  Not Observed / Pas observé

Updated / Mise à jour 30-SEP-2015



Figure 4. Breeding evidence map of the Loggerhead Shrike during the Manitoba Breeding Bird Atlas (2010-2014).⁶ Probable breeding in the atlas square near Snowflake represents the 2013 record documented in this note. Breeding confirmation for that area was made in 2015.

TURTLE LAKE NATURE SANCTUARY REPORT

Darlene Roth

Turtle Lake Nature Sanctuary Steward

Our four-season sanctuary has not stopped amazing us with the wonders of spring rejuvenation. Leaves are filling out and closing the depth one sees throughout the winter months. The trails are no longer quiet as our birds have returned to nest.

Our 12 information signs have survived the weather and are awaiting the wanderers of our worn trails. Stop at the main gate and pick up your pocket finder of birds and flowers that you can spot in our sanctuary.

Try your luck by taking your phone on the trails and using a good bird app such as Audubon Birds, iBird, eBird, or Peterson Birds. These are

just a few I have come across on the Internet, but there are many more. There is no mention here on which apps are best — just a starting point for you to search.

Visit Boucher's Birding Blog on Cool Green Science for a helpful self-guiding tour helper as you try to identify the many birds in our sanctuary by sight and song.

The sanctuary will be getting a new look at the main gate, thanks to a special donator Cliff Wieger and family. The kindness of volunteers and donators help us keep the grounds in good health for all ages to enjoy. Watch for our new gate sign!

As the ongoing trail, fence, and birdhouse maintenance takes up a little of our time, it is so rewarding to have trail walkers set foot in the sanctuary and share compliments. Thanks to Merv Brose — you're the best. No downed tree is safe when he is on a clean-up mission.

Our sanctuary is going to have exciting visitors from the Nipawan area. Rick Douslin, Doug Phillips and Doug Pegg from the Maurice G. Street Nature Sanctuary will be visiting and gathering ideas



The trails at the Turtle Lake Nature Sanctuary are no longer quiet as the birds have returned to nest.
Photo credit: Darlene Roth



Muriel Carlson (right) and Brenda Rutz enjoying the trails at the Turtle Lake Nature Sanctuary.
Photo credit: Darlene Roth

on how we run our Turtle Lake Nature Sanctuary. I am so excited to share and hear stories from these gentlemen. My guided tour of our sanctuary is going to amazing.

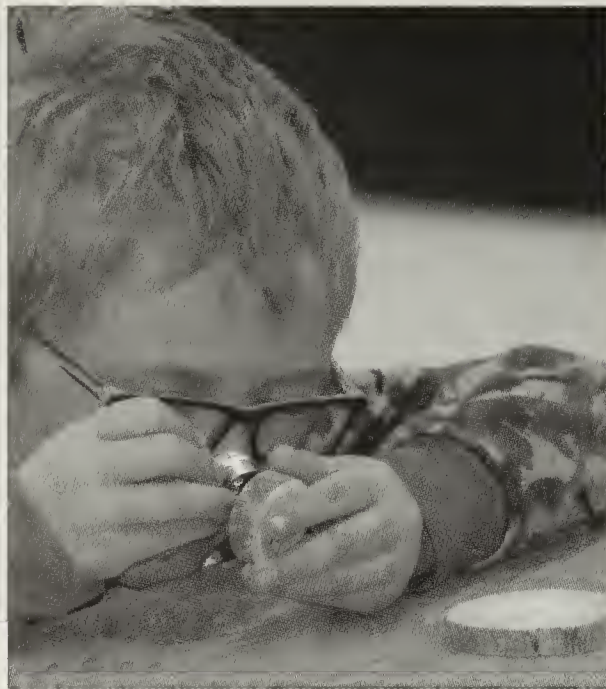
The sanctuary is home to 35 mammals, 60 lichen, 220 birds, and 260 different plant species — it is a perfect location for getting away from the city and back to the Mother Nature. During their visit we might encounter beavers, ospreys, frogs, bald eagles, chipmunks, warblers, coyotes, squirrels, moose, great blue herons, bears, pelicans, foxes, pileated woodpeckers, deer and kinglets. Some of the plants may include marsh marigold, western red lilies, orchids, goldenrod, dry ground cranberry, asters and a tree that is more than 150 years old. Yes, there is geocache on our sanctuary and I am planting another this year, so be the one that gets the FTF (first to find) coin. Watch for more later in the summer — I will register this cache to promote visitor traffic. 🐦



Tanner and Cooper Bahm hug a tree in the Turtle Lake Nature Sanctuary. Photo credit: Darlene Roth



The lookout spot on the north shore trail is a favourite spot to view water birds and beavers. Photo credit: Darlene Roth



NATURE NOTES: NATURE SASKATCHEWAN PARTNERS WITH AFFILIATE SOCIETY

Rob Wilson on behalf of the Yellowhead Flyway Birding Trail Association (YFBTA) www.yfbta.com

The YFBTA, with expert assistance, delivered educational programs for eager minds on Friday, April 22 and Saturday, April 23 in Saltcoats, Saskatchewan. The planners incorporated a youth component into their Saturday Nature Symposium by adding an extra day and partnering with the local school. Nature Saskatchewan also partnered in the event, sending Lacey Weekes, Conservation & Education Manager, to Saltcoats School on April 22 to educate students about the Important Bird Areas program. Colin Laroque, dendrochronologist and after-dinner speaker for the following evening, agreed to arrive a day early to join Lacey at the school (more on Colin later).

Lacey taught the students that birds need help, and that sadly, 20 per cent of known bird species are extinct. Help from humans is needed to prevent further extinctions. Lacey described the effort required for birds to complete a migration and reminded the students that birds need shelter, rest and plenty of easily obtained food (calories). When birds arrive at their resting places after a long migration, they are in a state of near exhaustion. With a focus

on Chaplin, one of Saskatchewan's Important Bird Areas, Lacey turned to the topic of adaptations of shorebirds.

An unsuspecting student volunteered to come forward and he quickly found himself — with help from Lacey — equipped with camouflaged plastic wings. Lacey provided long toes for his runners so that he would be able to wade on the muddy bottom without sinking. The student was surprised to find Lacey rubbing oil on his arms, but even more surprised when — with the help of a spray bottle — Lacey made it rain on this weary shorebird surrogate. She pointed out that even though he had just been sprayed, he wasn't very wet because the oil made the water ball up on his arms. Students with rapt attention enjoyed the antics as various other shorebird adaptations were presented.

Students in a second classroom were also treated to experiential learning as Colin, "the tree-ring guy," passed out magnifying glasses and sample tree rings. Teachers, never to be outdone, had incorporated tree rings and dragonflies (a Saturday topic) into some earlier lessons. More than 100 pieces of student work had already been sent to the Saltcoats and District Community Hall to be displayed as part of the Saturday program.

YFBTA thankfully acknowledges the teachers of the Saltcoats School who made it possible to provide some awareness of nature in the minds of more than 70 students. We also acknowledge Lacey Weekes and Colin Laroque who gave the most precious gift — time — and who shared their knowledge in creative ways with those youth.

The YFBTA Nature Symposium resumed Saturday at the Saltcoats and District Community Hall in the afternoon. Sixty-one — mostly adult — nature enthusiasts were introduced to David Halstead. Dave is an Instructor and Senior Researcher working at the Polytechnic Campus in Prince Albert, and travelled to Saltcoats to share his expertise of dragonfly biology.

Saskatchewan is home to upwards of 70 dragonfly species, and surprisingly it is only recently that they have been given scientific attention. Dave began by explaining the difference between dragonflies and damselflies. He also pointed out that dragonflies undergo three life stages — egg, larvae and adult (unlike butterflies, which add a pupa stage).

Dave's presentation, complemented with numerous photographs, held the crowd in fascination as he moved through examples of dragonfly

adaptations that enable them to be voracious predators. He informed us about dragonfly larvae as well. It was interesting to learn that some species spend as long as three or four years as larvae, but once in the adult stage, the life cycle is brief. The larvae live under water and, like fish, possess specialized respiratory structures for breathing oxygen. The larvae also have formidable jaws (a great topic for young learners) and are voracious predators in the murky depths of ponds and streams.

Transitioning to adaptations in adults, dragonflies develop new structures for the intake of oxygen from the air. His discussion of the complex structure of dragonfly eyes proved to be an eye-opener for the audience. Further adaptations render dragonflies swift and skillful fliers (according to Dave, who may be prejudiced — the BEST). I, for one, now understand why it is so difficult to capture an adult with a net.

Dave concluded with pointers on how to view dragonflies. For those interested in a more intimate experience, he also discussed netting techniques and where to go for additional information and equipment.

I happily recommend the book *Dragonflies and Damselflies in the Hand* by Dave Halstead and G. Hutchings (ISBN 978-0-921104-25-4). This book, available through the Nature Saskatchewan office, will provide specific information to complement the general comments above. Incidentally, the book will serve as an excellent resource to connect a youth who aspires to be “a voice for nature” to the natural world.

Following Dave’s presentation registrants re-focused, next learning about birding under the expert tutelage of Don Weidl of Broadview. With the aid of many engaging slides, Don patiently walked the crowd through criteria to bear in mind when attempting to identify that mysterious bird: size, shape, location, flight pattern, field marks, behaviour, and — most difficult for this writer — song.

Don provided a number of suggestions for resources such as cell phone applications, websites and citizen science opportunities for those wanting to pursue this interest. Don, a YFBTA member, has contributed to our association’s newsletters and continues to share, generously, his time and knowledge.

A mid-afternoon break permitted visits to tables of displayers (Nature Saskatchewan, YFBTA and Ducks Unlimited) and of vendors (books, jewelry, bird seed, engraving) as well as the purchase of raffle tickets and silent auction items. Registrants then enjoyed one of Saltcoats’ regionally famous beef dinners.

Following supper, two Saltcoats students provided brief musical entertainment creating footprints that would be difficult to fill for the after-dinner speaker, Colin Laroque, who rose admirably to the challenge of maintaining the attention of an animated audience.

When at the Saltcoats School on Friday, Colin reminded the younger students (Grades 1 to 5) about trees — they breathe, they provide enjoyment, and they provide food and shelter for humans and for other organisms.

Students didn’t know that trees write “stories.” Each year, they grow a ring that captures much information about the environmental conditions where they grow. These tree rings can, like a book, be read. The oldest individual tree is about 4,850 years of age.

Because in today’s world there are more people, more insects and more fires, trees are being “used up.” Of course, Colin was asked how many trees there are in Canada. In the late 1980s there were estimated to be approximately 400 billion — today there are only approximately 300 billion left. There is an urgent need for conservation conversations.

The students enjoyed handling tree-ring samples, pine cones, branches, seeds and magnifying glasses, and a wood tick imported from the school


yard into the classroom following recess inadvertently became part of Colin’s presentation. Although one of the teachers attempted to quickly and quietly escort Mr. Tick from the classroom, this effort did not succeed before one student had the opportunity to look at it with the glass. Later as the class was leaving, the student approached Colin with shining eyes and a quiver in his voice, emphatically stating, “That wood tick was AWESOME!”

Colin’s Saturday presentation was framed by three stories. The first involved detective work on a controversial piece of wood that was claimed to have been taken from either *The Lusitania* or *The Titanic*. I won’t reveal the icy ending. Readers can ferret out the facts by contacting Colin at the University of Saskatchewan.

A second story was a recounting of Colin’s work with a group of high school students from Luseland who won “beam time” at the Canadian Light Source linear accelerator in Saskatoon.

A final story described recent work investigating unhealthy forests around Fort McMurray. Initial work points an accusatory finger at increased elevations of manganese in the area. Trees, while capable of “taking in” manganese are incapable of regulating the amount in which is taken. It may be that they are slowly being poisoned by an excess of manganese likely coming from nearby pollution sources. This mystery, with a likely suspect, is currently under further investigation.

The feedback from the two-day Nature Symposium has been gratifying. Registrants left the event with smiles, and many animated and energetic conversations could be overheard as folks departed for home.

The partners of the YFBTA for April 22 and April 23 were:
Saltcoats School
Nature Saskatchewan
Ducks Unlimited
The Yorkton Film Festival 

CHANGES TO OUR PUBLICATIONS AND MEMBERSHIP STRUCTURE

We hope that you enjoyed the first issue of the new Blue Jay and have eagerly awaited this second issue. At the June Annual General Meeting, ratification of the proposed changes was passed. We wanted to reprint this section to remind you of the changes to the membership fee structure and the timing of its effect.

With this format change for the Blue Jay, we will be able to offer an electronic version to our members in the very near future. The electronic version, once available, will be in full colour. Once our website is equipped (tentatively August 2016), members will be able to login with a personalized id and password to be able to view the material.

Annual membership fees will remain at the current rate until November 2016. Memberships received after November 1 will be enrolled under the new fee structure and receive a 14-month membership.

All existing three and five-year memberships will be honoured until they expire. Three and five-year memberships will no longer be offered.

If you have any questions, concerns, or if are seeking more information, please contact Nature Saskatchewan at 1-800-667-4668 (toll-free)/(306) 780-9273 or info@naturesask.ca.

The following were the changes ratified in June:

All memberships will be based on an annual subscription from January 1 to December 31 of the calendar year.

1. With the transition to an annual membership, three and five-year memberships will be phased out.
2. Existing Life memberships will endure and remain unchanged.
3. New Life memberships will be offered at an increased fee.
4. Student and Senior memberships will be offered at a discounted fee for the print version. Individual and Family will remain separate categories.
5. The fee structure will be based on being an "electronic" subscriber or a "print" subscriber. "Print" member fees are based on print and postage costs.
6. Institutional and Foreign membership costs will increase.
7. Fee changes are as follows:
 - Individual \$25/yr – Electronic
Individual \$40/yr – Print
 - Family \$30/yr – Electronic
Family \$45/yr—Print
 - Student \$25/yr –Electronic
Student \$35/yr – Print
 - Senior \$25/yr – Electronic
Senior \$35/yr – Print
 - Organization/Institution \$30/yr – Electronic
Organization/Institution \$60/yr – Print
 - Foreign/Outside Canada \$30/yr – Electronic
Foreign/Outside Canada \$60/yr – Print

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Grasslands National Park. Photo credit: Nicole Dunn

HUMAN NATURE

Nicole Dunn, Secretary
Nature Saskatchewan Board of Directors

As the birds slowly wake up, making their morning noises and the wind continues its endless lament, this is the most magical time for me. As dawn gently breaks on the horizon and the Milky Way lazily disappears, making way for the light, this is the most invigorating way to start your day. As the prairie comes alive with movement and so do you; as the smells and sounds and sights are revealed, you can't help but be inspired. Many Saskatchewan people, especially Nature Saskatchewan members, have a special place in their hearts for Grasslands National Park. I am no exception, and some of my favourite Saskatchewan memories have been formed in this protected native landscape.

South of Val Marie lies the breathtakingly beautiful West Block. Here is southern Saskatchewan at its finest, a place almost untouched by human hands. As a girl who grew up in Northern Ontario, constantly surrounded by trees and water, I

never knew that such a place existed. The West Block is a wide open space with nary a tree in sight and skies so vast that if you lay on your back in the grass, you almost feel like you're flying as the clouds go by. But be sure to check for cacti first! You could even discover a tipi ring or a dinosaur bone while you're lying there.

Grasslands National Park hosts so many of our province's species at risk that it's almost impossible to miss them. From Sprague's pipits singing way up in the sky, to burrowing owls hidden in their burrows, to nocturnal black-footed ferrets, they can all be found here. The grassland habitat is so complex that once the land is broken, it's impossible to recreate. If you're up early and in the right place, you may spot a lek with a male greater sage-grouse strutting his elaborate courtship ritual. I have been lucky enough to witness these highly endangered birds and it truly was an experience I'll never forget. It's hard to miss the bison (but don't get too close!) and the prairie dogs comically playing nearby.

But here, Mother Nature can be temperamental. People in

Saskatchewan (and even in the rest of Canada) often talk about how quickly the weather can change, but this is especially true in Grasslands. One minute it may be a beautiful sunny day and the next, the winds have picked up and the clouds have started to build. The lightning is spectacular and the storms are very unforgiving. This lightning frequently ignites grass fires and the wind fans the flames.

When the day is almost done, hike through the grass to sit atop the rolling hills overlooking the Frenchman River Valley and witness some of the best sunsets that southern Saskatchewan has to offer. The many shades of orange and red trailing the sun rival even the best autumn leaves found in our northern forests. The day may be over, but the memories of this extraordinary place will stay with you for years to come.

Human Nature is an ongoing series for Blue Jay. In each issue, we will feature someone's favourite nature spot in Saskatchewan. Please contact Annie McLeod if you are interested in this opportunity. 🐦



This issue's mystery photo was submitted by Richard Staniforth in Winnipeg, Manitoba.

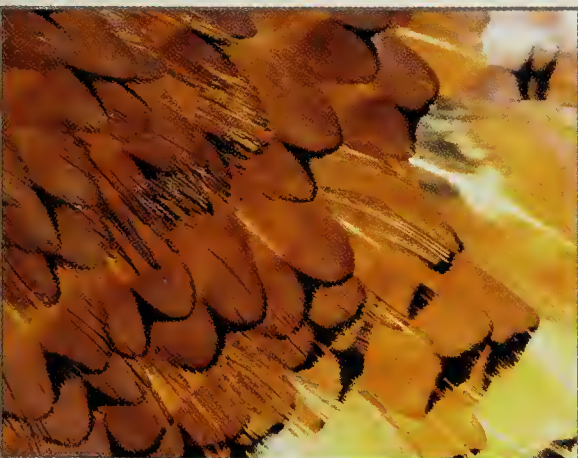


Photo credit: Kerry Hecker



Photo credit: Christian Artuso

Mystery Photo Spring 2016 (left)

ANSWER:

The feathers shown in the Spring 2016 issue of Blue Jay belong to a male ring-necked pheasant. Kerry's photo depicts the feathers from the back of the neck at the base, just below the white ring.

Mystery Photo Summer 2016 (above)

THE QUESTION IS: To which fern do these leaf stalks belong?

Please send your answers to Blue Jay editor Annie McLeod at bluejay@naturesask.ca or by lettermail: 3017 Hill Ave. Regina, SK S4S 0W2.

Those with correct answers will be entered into a draw for a prize from Nature Saskatchewan.

Have you taken a picture that may make for a good mystery photo? Send it to Annie using the contact information above.



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